SOFTWARE MERCHANDISING

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Pirating And Bootlegging

SOFTWARE SALES TOOLS

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SOFTWARE MERCHANDISING

C O N T E N T S

Cover Art Ron Lipking

Publisher's Note

Despite the glitter that continues to surround entertainment computer software, another important software product category for the home needs to be recognized by software merchandisers—educational programs.

The early trend in the education field seems to be to combine a game-like entertainment quality with educational values.

In terms of distribution, there is still some difference of opinion as to what types of retailers will emerge as dominant in this software area, a critical issue addressed in this month's cover story. In fact, the industry is even witnessing the emergence of software-only distributors.

The answer seems to be that educational software will cut across a number of retail channels, including computer stores, software specialists, department stores, mass merchandisers, video stores, record-tape outlets, bookstores, toy stores, audio-visual outlets, drug stores—and eventually even supermarkets.

The key element for software merchandisers to understand is that a profitable market is to be had in educational software; but it is an area that needs to be investigated and researched immediately in order for the various distribution channels to understand how they fit into the software picture.

It is important to note that while the initial wave of educational software will be directed toward the younger user, college level software as well as adult educational software will proliferate.

For the software merchandiser, educational software is likely to be a more stable and profitable item, and experience a longer shelf life, than hit-oriented game programs. Like dictionaries are to bookstores, a good SAT program will experience longevity at the retail level and bring profits in the long run.

The latest consensus of projections indicates that the educational software market alone could reach an amazing $1 billion by 1987, with 70 percent of the product flowing into the home. That is against the backdrop of an approximate $5 to $6 billion home computer market—so that education could represent 20 percent of computer software sales.

At the forefront of this educational software explosion will be established courseware firms and publishers, but they will be joined by the larger computer entertainment and business software companies as those companies seek to broaden their product mixes. The hardware manufacturers as well will also become key players in educational software picture.

Likely, too, the industry will witness a continuation of cross-licensing, home co-ventures, co-arrangements and other joint efforts among courseware specialists, larger software entities and hardware manufacturers. Each will bring something to the other.

Bill Slapin
Publisher

SOFTRENDS

ITA ENTERS A NEW FRONTIER: At the International Tape/Disc Association's (ITA) 13th annual seminar held recently in Hollywood, Fla., the widening of its scope of activities to include personal computers, computer software and video games was announced. Additionally, such new activities as a statistical program on U.S. sales of flexible disks (floppies), the collection of statistics on Canadian sales of blank audio and video tapes and a certification program in Canada for the ITA Golden Videocassette Awards were outlined by Henry Brief, ITA's executive vice president. Furthermore, the executive for ITA says that a meeting has been scheduled during the seminar to explore setting up statistical programs on U.S. sales of pre-recorded videocassettes and videodiscs as well as a re-examination of the criteria for the ITA Golden Videodisc Award in the United States.

ABSENCE MAKES PHILCO TVs GROW COMPACT AND CONTEMPORARY: After nearly a two-year sabbatical Philco, Knoxville, Tenn., has revived its line of television sets. It introduced a 15-inch, two-knob, click-stop tuning, color model in February. Seven other color models and one black-and-white portable have also been added to the Philco line. "Our new 15-inch color portable is as much a statement of where we are going as where we have been. It demonstrates our ability to be a unique alternative for the consumer among the industry's many brands," explains Rick R. Policicchio, vice president and general manager of the Philco brand.

THE TIMEX-SINCLAIR COMPATIBLES GAME: Memotech Corporation, Denver, Colo., has announced four new add-on products for the Timex-Sinclair 1000. The products are: a standard keyboard, Memocalc spread sheet-analysis software, word-processor software, Memotext, and Memopak Assembler for TS-1000 programming.

TO FREE CHASSIS EXPANSION SLOTS: Microsoft has introduced a new SystemCard for the IBM Personal Computer incorporating four different functions—both serial and parallel interfaces, 256k bytes of RAM and a calendar/clock with battery backup. Hence, this Bellevue, Wash.-based company has allowed users more chassis expansion slots. Additionally the parallel interface comes compatible with Centronics-type printers and includes a print spooler buffer memory. Users may continue to use the computer while printing a document.

EDUCATIONAL SPECIALIST: SoftKat, Hidden Hills, Calif., emerges as a distributor of educational software products, according to the firm's president Alan Gleicher. The firm is utilizing what they term The Educational Computer Center, a free-standing point-of-purchase display unit featuring an Apple II Plus computer with disk drive and controller card, as well as an Amdek 13-in. monitor. The computer sits on a chest of four drawers containing the product, while a poster sits behind the computer. Among a handful of the lines SoftKat is distributing are Edu-Ware, The Learning Co., Sterling Swift, Micro Power & Light Co., Terrapin, Inc. and others.

GOING MOBILESOFT: The New York and Philadelphia markets are now being serviced by MobileSoft, Aberdeen, N.J., a computer software distributor which serves retail stores directly from vans filled with software stock. Founded in 1981, the company has grown from a concept to three full-time outside salesmen, two vans and a 3,400 square foot warehouse and office.

RIDING PIGGYBACK: Entex Industries, Inc., Compton, Calif., has announced that its Entex 2000 Piggyback computer now fits ColecoVision and Intellivision. With the use of Coleco's Expansion Module #1 Adaptor and Mattel's Expansion System A (Entex's electronics product manager, Dimitri Criona, says the Mattel Intellivision has not been fully tested yet, but it should work) users can take advantage of a full-sized, 70-key computer keyboard including four cursor movement keys and nine function keys. The Piggyback is usable out of the box and expands to 34K of RAM, a company spokesman reports.

SNEAK PREVIEW: Programmed into all new TELESYS games is an in-store play mode. When prospective consumers first plug such a game into an Atari unit, the game will play itself. "You can equate this to in-store play of records," explains Rich Taylor, president of Telesys, Fremont, Calif. "It gives the consumer a sneak peek at what they're buying, plus helps to promote a game." Taylor says the idea of sneak peeks occurred to him during the Winter Consumer Electronics Show in Las Vegas last January. "One of the first things that came to mind when I first walked onto the floor at CES was 'How in the world do these retailers choose?' I don't envy retailers at this point." With that in mind, he came up with a way to allow retailers to do other tasks while virtually giving customers game demonstrations.

ENTER SOFTWARE FOR THE 64: Creative Software, Sunnyvale, Calif., believed to be the largest publisher of software for the Commodore VIC-20, has announced nine new titles for the Commodore 64. Five of the new titles are home applications and four of the new titles are games.
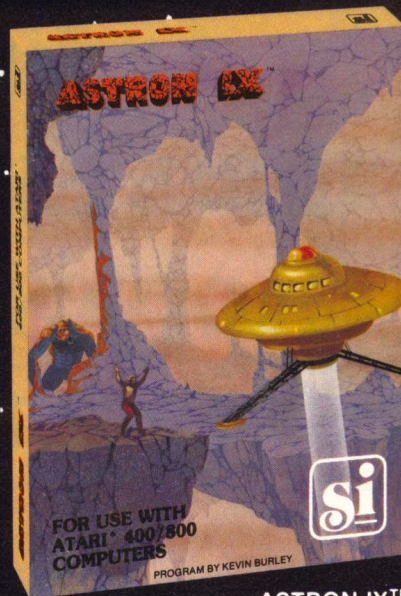
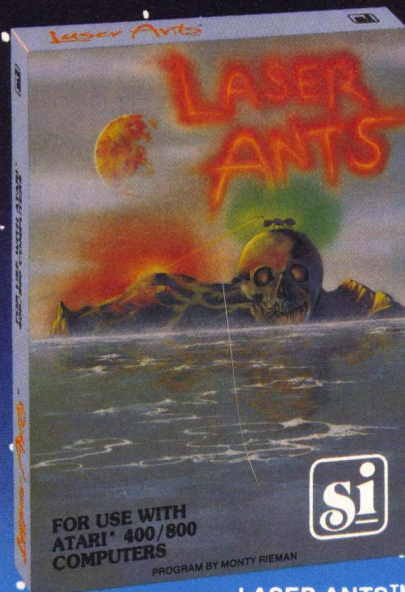**CBS DROPS PRICES:** New lower prices on most of CBS Software's line of home computer software, which went into effect February, were the direct result of and expanded distribution base and dropping manufacturing costs, explains Art Barnett, vice president of marketing services for this Greenwich, Conn.-based company.

TALMIS SPEAKS: A recent study by Talmis, Oak Park, Ill., finds that computer stores accounted for more than 21 percent of software dollar volume to schools in 1982. By 1986 computer stores' market share is expected to drop to 10 percent. The study goes on to point out that computer stores' share of the home education dollar is expected to drop from 38 percent to 22 percent during the same time period. The new and important distribution channels for software publishers will be those which have traditionally excelled in particular markets. The audio/visual dealers and direct sales forces will dominate school sales. Consumer stereo, office supply, general merchandisers and book stores, will become the major suppliers of computer software in this study. Another Talmis study finds that most home market software publishers are at least studying the possibility of bringing out cartridge software. Why? A cartridge can lessen the problem of what to do with a 3.2 K computer. It is fairly durable. It is less susceptible to piracy and it can supply speedy software to those without a disk drive.

RECORD CONNECTIONS: Stark Record & Tape Service, Inc., one of the country's largest record retail chains, based in North Canton, Ohio, is changing its name to Camelot Enterprises. Today the company operates 137 Camelot Music and Grapevine Record & Tapes stores in 27 states with an additional 13 stores due to open by the end of the year. Camelot Enterprises, Inc., also operates racked departments for more than 80 Fisher Big Wheel and Conley's department stores in a seven-state territory. The chain has made aggressive moves in recent years to go beyond records to home video, video games and now computer software retailing. More record connections: The Handleman Co., Detroit, a major, veteran record rackjobber, becomes the country's first national rackjobber to set up its own independent home computer software division and will begin by servicing six to eight mass accounts. Meanwhile, Alpha Distribution, a major New York-based independent record/tape distributor, has established a home computer division, ADC Micro Distributors. It will cover traditional computer as well as music retail accounts in the Northeast ranging from Maine to the New York/New Jersey area.

MASS MERCHANDISING OPTION: Service Software, Dallas, is offering mass merchandisers an open stock packaging alternative to its regular, point-of-purchase display cabinets. Products are individually sealed in "see through" vacuum-formed vinyl shells and hung on "J" hooks to self-service. Ultrasonically sealed shells deter theft, according to the company, while permitting customers to see high-quality graphics.

COMMODORE DISTRIBUTION: Commodore Business Machines appoints CSI Distributors, Spring Valley, N.Y., a distributor for their consumer products division. CSI will primarily handle Commodore consumer products such as the VIC-20, Commodore 64, and software and peripherals also manufactured by CBM.

MATTEL KUDOS: Mattel Electronics won the highest honors in artistic excellence (a Gold Medal for its Intellivision *Advanced Dungeons & Dragons™ Cloudy Mountain™* cartridge at the first Video ARTcase event, sponsored by the Corcoran Gallery and School of Art in Washington, D.C. Two other Intellivision games also received Awards of Merit, *Frog Bog* and *Star Strike*.

CLEANING UP: The Evans Specialty Co., Richmond, Va., is making available a special Statkleer™ cloth impregnated with a special chemical treatment and made of double napped, 100 percent cotton flannel fabric, designed for use on either home or office CRT screens. Measuring 12 inches square, it will retain its chemical potency for four to six months. The firms maintain that on CRT or television screens, static can not only collect dust but also causes video interference.

TEN FOR PIGGYBACK: Entex Industries, Compton, Calif., is introducing several titles for use with the 2000 Piggyback™ Color Computer, which, the firm claims, will convert most major video game systems currently on the market into computers. The new products will cover a range of areas including education, personal finance and personal development. *Computer Typing*, *Home Finance*, *Basic Programming* and *Beginning Math* start shipping in April with a suggested retail list of $39.95 each.

YELLOW PAGES: PC Telemart, Inc., Fairfax, VA., introduces the PC Clearinghouse Software Directory as a guide for buying software. It lists more than 21,000 software packages and identifies 2,912 software publishers, and 200 microcomputer manufacturers with cross references to hardware, operating systems, applications packages, programming languages and prices. The company says the 840 page directory will be available this spring in numerous Waldenbook, ComputerLand, Sears Business Systems Centers and other independent computer hardware/software stores and bookstores for $29.95.

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SOFTWARE STANDARD: A software documentation standard, claimed to provide a basis for lower software life-cycle costs, is being introduced by Associated Technology, Estill Springs, Tenn. The 58-page standard, costing $22, is said to cover all elements necessary for documentation of a detailed software package.

SOFTWARE WHOLESALERS FLEXES: Software Wholesalers, Avon, Mass., is adding recreational and educational packages to its CP/M line. To go with that will be a new marketing plan featuring 1/10 net 20 credit terms, a six-month merchandise exchange policy, co-op advertising and a substantial literature program.

NEW DISPLAYS: The computer products division of Maxell Corp. of America, Moonachie, N.J., introduces two point-of-purchase displays for its line of 8-inch and 5½-inch compact floppy disks. Available as part of its advertising co-op program, one display is an upright floor-standing unit, while the other is a wire rack designed for mass merchandisers, catalog showrooms and computer dealers with limited floor space. At the same time, the computer products division is manufacturing an improved jacket for its line of floppy disks which is said to be heat resistant up to 140° F to withstand drive heat without thermal expansion; it also extends disk use without risk of mistracking.

CONTINENTAL EXPANDS: Continental Software, Los Angeles, appoints four new representatives to its sales staff to service the software publisher's growing number of distributors and dealers.

BULLOCK'S CHAIN GETS ITS SATELLITES: ComputerLand Corp. announces that the Bullock's department store chain has signed a contract whereby ComputerLand Satellite computer software outlets stores can open within its chain stores. The agreement basically calls for a 400-square-foot store inside the Bullock's stores, located in California. The Satellites will carry a broad range of software plus selected personal computers, books, magazines and supplies, explains Ken Waters, ComputerLand's vice president of development. Bullock's credit card customers will be able to use their cards to purchase merchandise. In addition to the department store- satellite connection, ComputerLand, which has more than 400 stores world-wide, also reports that during 1983 it plans to open some 75 international stores and nearly 300 new domestic stores.

COLECO AND ATARI SHAKE HANDS: All issues that became the subject of litigation between Coleco Industries, Hartford, Conn., and Warner Communications' Atari, are settled, a spokesman for Coleco reports. The settlement allows for Coleco to become licensed on a royalty basis under Atari's patents to continue to manufacture and to sell its Expansion Module No. 1 for the ColecoVision Video Game System as well as the free-standing Gemini Video Game Systems.

A DEALER-ORIENTED NEWSLETTER: In the first edition of SYNAPSEnews, a newsletter for dealers, Synapse, Richmond, Calif., reports that it has established a line of software for the Commodore 64 and VIC-20. Additionally, the company's "word-of-mouth" campaign will provide software merchandisers with a demo disc of a new game. Also included in these "Instant Hit" kits is a four-color poster and a sample box.

ELIMINATE SOFTWARE PROBLEMS: A new 40-page catalog from Electronic Specialists, Nadick, Mass., tells of a number of products designed to eliminate problems typically blamed on software. Such products are AC power line filter-suppressors, equipment isolators, etc. Additionally, descriptive sections outline specific software problems and discuss possible solutions.

LET YOUR FINGERS DO THE WALKING: The National Retail Merchants Association will publish a comprehensive directory of application software with the aid of Coopers & Lybrand, a consulting firm. This New York-based association says such a directory would help hundreds of companies ranging from "mom and pop" shops to major corporations. An information gap has been created between what retailers would like to see in the way of computer software and what actually exists, they say.

QUALITY CONTROL REMEMBERED: With home computer sales skyrocketing, John Cavalier, president of the Home Computer Division of Atari, Inc., Sunnyvale, Calif., warns retailers and consumers to also consider reliability of a computer and service prior to making buying decisions. "In choosing a home computer, consumers usually consider price and available software," he says. Out-of-the-box failures are something to be concerned about.

FYI—ANOTHER HIGH TECH ADVANCEMENT: Compression Labs, Inc., San Jose, Calif., announces a still-frame color option that enables users of its video teleconferencing system to send and receive still images in full color over readily available, low-cost data transmission lines. This option allows users to choose either full-motion conferencing or still-frame, transmitted at less than 56 kilobits per second.

MORE CONSULTING HELP IS ON THE WAY: A new consulting organization which specializes in the consumer electronics and computer fields recently opened its doors to entrepreneurial companies. The new organization, The Marketing Group, San Francisco, has eight consultants now located throughout the United States. Company president Stephen Case says his company provides cost-effective marketing guidance that, he hopes, will enable companies to prosper. The Marketing Group specializes in product positioning, advertising, promotion, pricing the strategic planning, and is run by experienced, practicing marketing executives.

SELL FIVE BOXES OF BLANK MEDIA, GET A FREE GIFT: National marketing organization Continental Resources, Inc., Bedford, Mass., has announced that for every five-box purchase of Maxell or Verbatim Datalife diskettes a special free gift is included. What is the gift? A color-coded diskette library kit, regularly priced at more than $24. The multi-colored library cases and coordinating labels enable fast, easy filing and time-saving retrieval. Each kit stores some 50 diskettes.

TALMIS SPEAKS AGAIN: The recent third annual TALMIS conference, held in Chicago, indicated that the software market to date has been spearheaded by entrepreneurial organizations because they had the necessary technical expertise and were small enough to be quick to the draw with new products in new distribution channels. But as 1983 began, companies like CBS, Scott-Foresman, Xerox, Houghton Mifflin, Parker Brothers and Prentice Hall are joining the VisiCorps, Broderbunds, Edu-Wares and Sierra On-Lines, leaders in the software industry, according to the Oak Park, Ill., research firm.

THE KRELL GUARANTEE: How's this for confidence in your product? The Krell Software Corp., Stony Brook, N.Y., one of the industry's trendsetting educational software firms, is offering a money back guarantee based on user performance. Individual users of Krell's *College Board Scholastic Aptitude Test (SAT) Preparation Series* are promised a full refund by Krell if their SAT scores are not increased by at least 70 points after using the program series. In its present form the 42-program series incorporates the latest artificial intelligence-based programming techniques to customize instruction for each individual student. The program is designed by Edward I. Friedland, Ph.D., Krell chairman of the board. The SAT package is geared toward both the home and educational markets.

LEGAL ACTIVITIES: Atari recently shifted its distribution approach by lining up exclusive agreements with distributors, who agreed to sell only Atari products. In fact, Atari even dropped a Warner Communications cousin distribution division, WEA, the powerful Warner Brothers/Elektra/Atlantic Records branch distribution operation, with its many inroads into the record/tape retail pipeline. WEA is also considered strong in home video distribution since Warner Home Video product also goes through WEA channels. But Parker Brothers, in court, objected to the move, claiming that they also had product distributed by a number of the 40 or so distributors in question, believed to be near half of the country's 100 most powerful video game distributors. Parker Brothers maintained that the Atari move resulted in the cancellation of some $15 million worth of orders and was able to receive a temporary restraining order from an Alexandria, Va., U.S. District Judge. Later, though, that same judge lifted the restraining order.

WALL STREET JOURNAL SPEAKS: The President digs video games. A recent item in the *Wall Street Journal* cited the President as lauding video games as he spoke before a group of math and science students at the Walt Disney Epcot Center in Orlando, Fla. He waxed enthusiastic that video games are teaching and training a whole new generation of jet pilots and that video games in general have aided many younger people to develop "incredible hand, eye and brain coordination." Still, he cautioned, younger people need to place their major priorities on homework, sports and other traditional values.

MICROSOFTWARE FORMS: Robert Shapiro, formerly executive vice president of marketing for Celestion Industries, Inc., the U.S. marketing arm of Celestion International of Great Britain, establishes MicroSoftware International, Inc., a marketing and merchandising distributor for developers of microcomputer software both in the U.S. and Europe. MSI will exclusively distribute Computer Software Associates products via established manufacturers representatives organizations throughout the U.S. MSI is Randolph, Mass. based. At the same time, Computer Software Associates, Inc., introduces *Practicalc*™, an electronic spreadsheet for the Commodore VIC-20 and the Commodore 64. Suggested retail prices respectively: $39.95 and $49.95. MicroSoftware also announced the appointment of three manufacturer's representatives: Computer Representatives of Massachusetts, Dedham, Mass.; Grossman-Kaplan Assoc., Spring Valley, N.Y.; and Multiplex Marketing, Columbus, Ohio. The company has established national representatives in an attempt to offer its dealers better service and support on its products.
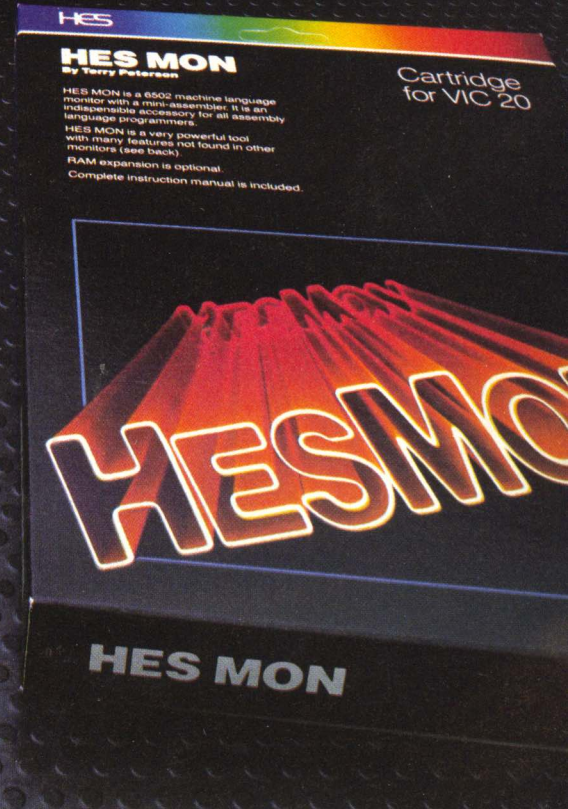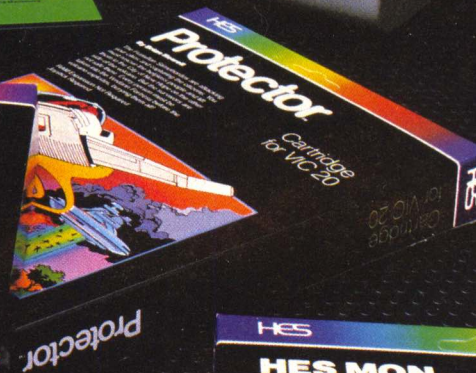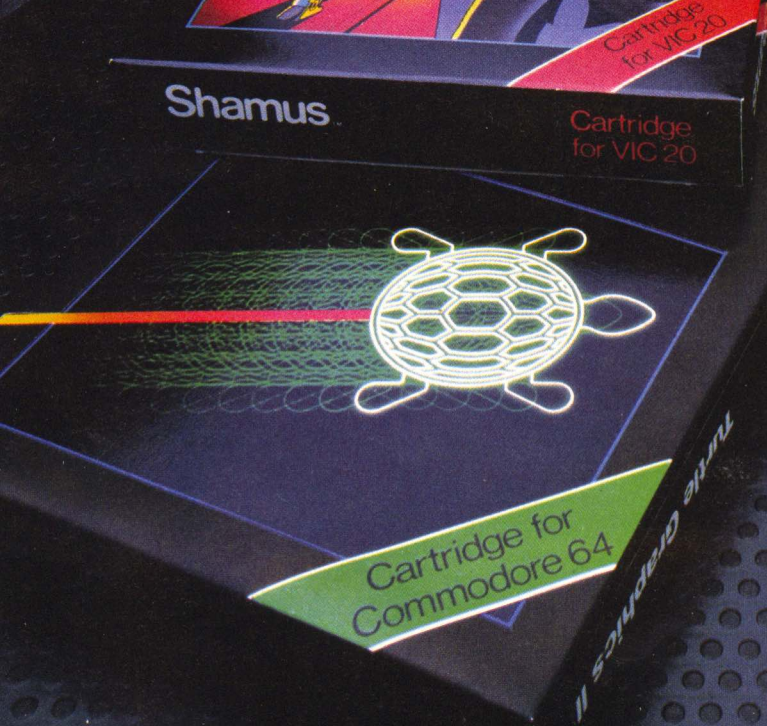
SALES REPORT

As the spring quarter melts into the summer months, the retailers interviewed for this month's sales report say they hope the sluggish recovery currently dulling retail sales in the United States will bloom into a booming economy. Several retailers observe that spring quarter sales rose slightly. And following February's more than flat sales this rise possibly indicates that a quicker recovery is on the way.

The customers browsing these retailers' stores seem more computer literate. They are asking about educational-home office applications, they say. Although video game sales remain strong, customers do inquire about upgrading their game machines to include more serious computer applications, the retailers interviewed this month report.

However, some believe, this rise in computer literacy has brought about an increase in software piracy and counterfeiting, causing store owners to set stricter policies on customer returns and exchanges.

SOUTH

"Piracy and counterfeiting are general problems in the industry. Everyone is discussing these problems," says Chris Perez, operations manager for **Software Centrum, Coral Gables, Fla.** "Our policy on returns is that we will replace anything that is defective, but we will not replace it with a different kind of program. Of course they can crack the code, copy the program, damage it and then try to exchange it for something else."

Frequently, the store gets calls from people who ask questions that imply they are trying to break a program's code, Perez explains. "We are terse when dealing with such people. I guess it is just temptation to get something free."

Software Centrum, located in the downtown area, caters to a group of business executives who crowd into the store during lunch hours. They are looking for software for their home and office computers.

During non-lunch hours, the store deals with hobbyists, children and mothers, who increasingly are looking for educational applications, he says.

After 1982's holiday season, sales there dropped. Since the end of January and a flat February though, sales have started to increase.

Bob Young, corporate officer and sales manager at **Computer Tree, Winston-Salem, N.C.,** observes that his customers seem better at defining the kinds of applications they need.

The customers at this store generally buy computers and software for their businesses. But recently those customers and other new customers want to bring the technology home. "We are seeing more home clients, although we do not make an effort to cater to that market," Young reports.

Additionally, this home market buys serious applications. *Apple Writer* was the top-selling program there during March. *Frogger* is a big seller as well.

Computer Tree, located within a mile of the city's main shopping mall, sells Apple products only. It carries more than 400 different software titles. After nearly one year of being in business, Young notes, a change in software standards has occurred. The quality of products is improving, he says. The older packages, once extremely popular, remain on his shelves now. The new, improved programs he sells out of.

WEST

Also touting exchanges-on-defective-items-only-within-30-days-of-purchase return policy is **Software Stop, Lakewood, Calif.** According to the store's part owner, Richard Hixson, customers can deal directly with the manufacturer after 30 days.

Generally, he hears little about program copying, although he knows it is occurring. "Adults really are not doing it. It's just among youngsters," he says.

This software-only store sells about 600 different software titles—Apple, Atari and IBM compatible. The only hardware sold there are Atari 400/800s.

This store, located in a Los Angeles suburb, has been selling software for nearly one year. The top-sellers there are *Choplifter* and *PFS File*. Its customer base is what Hixson describes as the family market. "I mostly deal with people who buy software to use at home."

Since January sales have not dramatically increased, but they have not plummeted either, he says. Sales are steadily rising. Also on the rise, he has noticed, is customer computer literacy. His customers browse the store knowing exactly the kinds of applications they want.

Abacus North, Anchorage, Alaska, deals with a wide-ranging customer base. "We service customers ranging from 'bush' schools to upscale financial institutions," reports Ron Potter, part owner. Hence, the store offers a wide product mix—desktop business machines to portables. Software inventory totals some 500 different titles.

Nearly 50 percent of the store's customers are looking for software to use at home. These customers typically buy Apple II computers and some kind of home finance package. Continental's home finance software has been the top seller.

Potter observes that the customers there have become more cautious shoppers. "They are more wary of

DISCOVER THE DIFFERENCE

"...The Parade of Winners from Brøderbund Continues."*

A.E.

products and ruminate over buying decisions longer."

Counterfeiting and piracy appear to be popular pastimes among Anchorage's high school students, he opines. "I think their favorite occupation is to get a new game and try to break the code. They spend more time breaking and trading games and programs than they do using the products."

At **Sound Warehouse,** a record store in **San Antonio, Texas,** *Ms. Pac-Man* has been a big seller. The store sells video games as well as video game systems only. "We do not take returns on hardware, but on software we will exchange defective merchandise only within 30 days of the purchase date," says Sean Barnwell, a shift manager there.

This spring sales on video games increased "dramatically" since January and February when sales were seemingly sluggish, he says.

But it is still difficult to predict how sales will rack up on certain games, he says. Barnwell characterizes software sales as unpredictable. "It goes in spurts. Customer demand for a game will pick up, we will order the product in quantity and then the demand will subside. How do you know then how many to buy?"

✓ EAST

Also observing a growing interest in educational software among their customers is the sales force at **Software City, Teaneck, N.J.** "The educational market was neglected a few months ago, now the products are selling," says George Barnes, in charge of purchasing for the store. "We deal with more mothers looking for educational programs now than ever before."

This store sells more than 1,800 software packages for such machines as the Apple, Atari, IBM, Radio Shack, Texas Instruments and Timex/Sinclair computers. *Zaxxon* for the Atari and *Mask of the Sun* for the Apple are the store's best-sellers this spring.

Sales, since January's slump, have increased slightly. "Right now customers are not concentrating on buying or buying gifts," he says.

As for returns, a sign posted above the cash register explains the store's policy. The store will only exchange defective programs within 30 days of purchase. "Few customers contest this rule," he says. "The sign clearly states our policy."

While the sales force at **Video Warehouse, Towson, Md.** still finds a strong market for video game machines and video games, Linda Hopkins, in charge of inventory for the store, plans to increase the store's computer hardware and software inventories as well as open up a separate section of the store for computer products. "We think that the game machines and computers are separate products. They should be

sold in different sections," she says.

This store sells software for Texas Instruments, Timex, Commodore, Atari and Intellivision computer systems. The top seller has been *Ms. Pac-Man*.

Sales on computer software have gone slowly this spring, she says. Yet, this spring, a traditionally slow period for retailers, sales on software for the 2600 have skyrocketed. Hopkins explains that the store has been promoting lower prices on such software. Customers are still price conscious when it comes to video games, she concludes.

Because of theft, Donald Schwartz, director of marketing for **Computer Towne, Inc., Salem, N.H.** reports that only one package of each program is showcased on the sales floor. The rest of the inventory is kept in the store's basement warehouse. This soon will change, he says.

Store officials plan to install an alarm system. Then, software will be displayed along the walls grouped together by machine and category—educational, recreational and business. "We figure the more they see, the more they are likely to buy it," Schwartz says.

This store does take returns. "But we would rather not," Schwartz says. "Usually customers buy the wrong program either because of an inability to communicate the applications they desire properly or a misunderstanding of the description of the program on the packaging," he says.

✓ MIDWEST

With a "ring" of high school students pirating software, Gretchen Heuring, president of **The Future Now Shops Inc., Cincinnati, Ohio,** considers returns on a case-by-case basis. "We will take exchanges on defective products."

The Future Now shop is located in a strip mall. It sells about 400 different software titles for such machines as Fortune, Apple, Atari, Commodore and Corvus Concept. *Miner 2049er* and *Word Star* are two top-selling packages.

The only line of products not selling well there is Apple. Since January, she tells, there has been a shortage of Apple products. But other than the shortage in Apples, she characterizes the store's sales as good.

At **Video Star, Golden Valley, Minn.** the top-selling video game is *Ms. Pac-Man,* reports Judy James, vice president of the store. This spring sales have consistently increased. "It is getting busier. Business seems to be picking up," she says.

The store sells about 30 different titles, and experienced plummeting sales following the holiday season.

—FZ

Forget everyth heard about

Traditionally, game software for the Commodore VIC 20™ computer has fallen into two categories.

Dull.

And boring.

Which is a shame, since the price of the VIC 20 is pretty exciting.

Unfortunately, that small price buys only a small amount of memory. And that intimidates most game designers.

Which is why most game designers don't work for Tronix.

The best and the brightest.

Our programmers find short memories a challenge, instead of a burden.

They delight in squeezing the last drop of programming potential out of the machine.

They find fulfillment in fast action. Satisfaction in superior sound effects. Contentment in complex strategies and multiple levels of play.

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We don't play games.

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Judging a game by its cover.

We take the same sort of uncompromising approach with our merchandising.

For example, we encourage our illustrators to try and upstage our programmers.

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GOLD FEVER
GALACTIC BLITZ
SIDEWINDER
SWARM

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Not to mention a generous co-op program to help you do the same thing in your neighborhood.

Today the VIC 20. Tomorrow, the world.

If you think this is exciting, just wait. We've already begun to
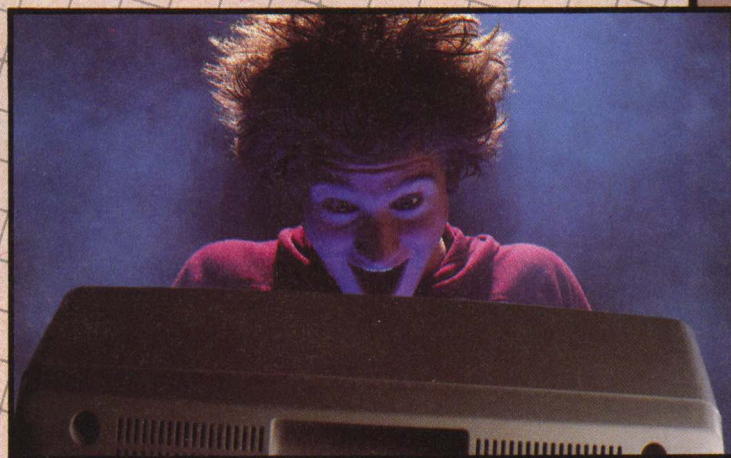
turn our attention to new challenges. Like the Commodore 64.™ Atari.® Even Texas Instruments.

But don't worry. We won't forget the VIC 20.

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The Educational Software Explosion

Ron Lipking
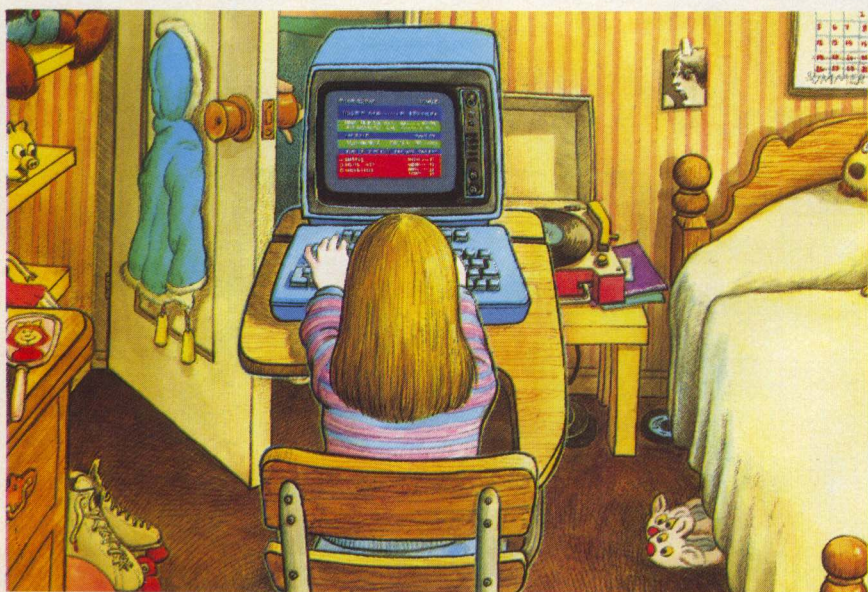
By Jim McCullaugh

First, let's examine several statistics and market forecasts. They border on staggering.

This is the year educational computer software comes into its own and makes all sectors of the industry—manufacturer, distributor and retailer—sit up and take notice.

A recent report by the oft-quoted Richardson, Texas-headquartered Future Computing, dubbed *Personal Computer Educational Software Market Report,* is calling for a market that will attain $1 billion in sales by 1987 or a compound annual growth rate of 71 percent from a 1982 market of $70 million. From a unit point of view, the 1982 educational software market, according to Future, was 2.4 million. This will jump up to 34 million by 1987. Currently, the report goes on to say, the school-based educational software market is the prevailing market. But as the locomotive sales growth curve of the microcomputer continues, this will shift toward the home.

In fact, the report points out that a whopping 70 percent of this $1 billion software market will be for the home.

At the leading edge of this new education software market will be a new type of computer education "game." A program that will combine the fun of a game with education and, indeed, that's exactly the tack many of the newer education software specialists are taking. The concept is to both entertain and instruct without boring rote and drill exercises, although certain educators still prefer the latter.

School educational programs will continue to some extent to fall into the latter category, be more "vertical," and hence find a narrower market.

Younger user

The booming home educational software market initially also appears to be aimed at the younger user, the pre-schooler up to the teen-ager preparing to take the Scholastic Aptitude Test for college. Beyond that, certain schools, like Clarkson, Potsdam, N.Y. are making a microcomputer an absolute part of the campus experience by actually giving every incoming freshman his or her very own Zenith computer for the following four year stint.

The Future Computing numbers don't include the Atari VCS-compatible, Mattel, Coleco or N.A.P. Odyssey video game cart markets, but there are those industry observers who contend that educational software for those machines will be a market factor, provided the software becomes more sophisticated.

Observes Ann Wujcik, director of research for TALMIS the Chicago-based market research firm: "Look what Atari, for example, has done with some of the things they have developed in conjunction with The Children's Television Workshop, the Atari Kid's Library, for example. There's no reason why that can't be labelled educational software. Of course, the level of interaction is more limited there but don't forget there is a sizable base of those machines out there and if the programming gets a little more sophisticated, then there's a substantial market there. Interesting programming can revitalize any sagging interest in the dedicated game console market.

"There's no reason," she continues, "why the VCS won't become the kid's machine while mom and dad have the Apple or the IBM PC. And in many respects it is the VCS cartridge or the Mattel Intellivision that paved the way for kids using home computers. I would like to see educational software move away from an arcade-style level to a more sophisticated, conceptual level, no matter what the format.

"The bottom line is, if you've got good developers, you can make it viable. There's no question that many of the video game cartridge companies have "hot" programmers but they will need to work in conjunction with people who know the educational field to come out with successful programs.

"I also think you will see a lot of

distinction-blurring at the low end in terms of what people think they have and what it is they actually have. We've done some studies asking people if they own a microcomputer where they have said "yes," only to learn that what they actually owned was an Atari VCS, Coleco or Mattel Intellivision before that company added a keyboard."

While most industry observers agree that educational software is about to boom, not everyone agrees on certain key issues that may or may not affect the marketplace.

1983 trends
Here are a few forecasts and reservations:

> Points of view differ on distribution. There are those that contend that book stores and audio/visual outlets will become major factors in the selling of educational software. Others feel department stores will play a dominant role, as well as the toy store.

—Established specialists are expected to be leading forces in the educational software explosion but one key trend for 1983 will be the introduction of educational software packages by traditional computer game firms which plan to expand their lines. Future Computing lists such firms as Arcsoft Publishers; BrainBank; The Childrens Computer Workshop, Inc.; CONDUIT; Educational Activities; Educational Courseware; Educational Software; Edu-Ware; Hartley Courseware; Krell; MCE, Inc.; Micro-Ed; Micro Learningware; Muse Software, Inc.; NTS; Orange Cherry; Program Design; Right On Programs; Spinnaker Software; as well as such textbook publishers as Addison-Wesley; Harper & Row; John Wiley; McGraw-Hill, Inc., Milliken; Random House, Reston; Scholastic; Science Research Associates, Inc.; Scott, Foresman and Company; South-Western Publishing and Sterling Swift as trend setting educational software publishers.

But any number of computer game firms, including Roklan, Sierra On-Line and others will be offering educational software packages by CES.

"I see a lot of joint ventures, coventures and other kinds of arrangements," observes Wujcik. "Case in point is *Bank St. Writer* where Broderbund has the retail rights, while Scholastic has the school rights. The game companies will need to rely to some extent on the expertise of educational experts but the game companies have more money and marketing muscle. Some of the smaller educational firms have great product but some don't have the marketing muscle or financial resources to get it into mass merchandising channels."

—Points of view differ on distribution. There are those who contend that book stores and audio/visual outlets will become major factors in the selling of educational software. Others feel department stores will play a dominant role, as well as the toy store. Certainly a lot of software will follow hardware and such established giants as Apple, Atari, Commodore, Texas Instruments and IBM will have much in the way of educational software. TI, for example, places enormous emphasis on educational software. It has for the past three years.

—It's generally agreed that pricing and margins should remain stable this year on educational software although price differentials on software could play a major role in distribution and retailing. A $60 educational software package will find its way into bookstores, computer hardware and software boutiques, while a $19.95 or $29.95 piece of educational software might more likely gravitate to a mass merchandiser.

—1983 will also see the emergence of the educational software specialist, a distributor who handles nothing but education software packages and who will provide specialty services and attention in this realm alone to both retailers and schools.

Market igniting
But no matter what the pros and cons shape up to be, one thing is certain. Educational software is igniting on all levels. And retailers of all types are bracing.

According to Steve Pederson, president of Edu-Ware, "Our product has validity, we think, in both the home market and the school market. The bulk of our marketing effort, however, will be at that home market. I have to qualify that by adding that is where we are going to put our media and marketing dollars because the competitive and distribution factors at the school level are cumbersome to say the least. And the home market is going to be the big play.

"But something we have learned after four years in this business is the same product can have validity in both areas.

"There used to be this notion that you had educational games for the home and instructional product for the schools, which is why schools buy so many games and so many people in the home buy instructional products. That distinction between targets never materialized and won't. To a larger extent what you are seeing is part of a longer term trend which is to see parents taking over more control of the education of their children. It will be a joint buying decision but what is important is that the parent is very willing to invest money there. I think what you have in the home is a more economically efficient market where the parent can really see the value of an educational product and will fork over the money more readily than a school district which is caught in 17 layers of budgeting

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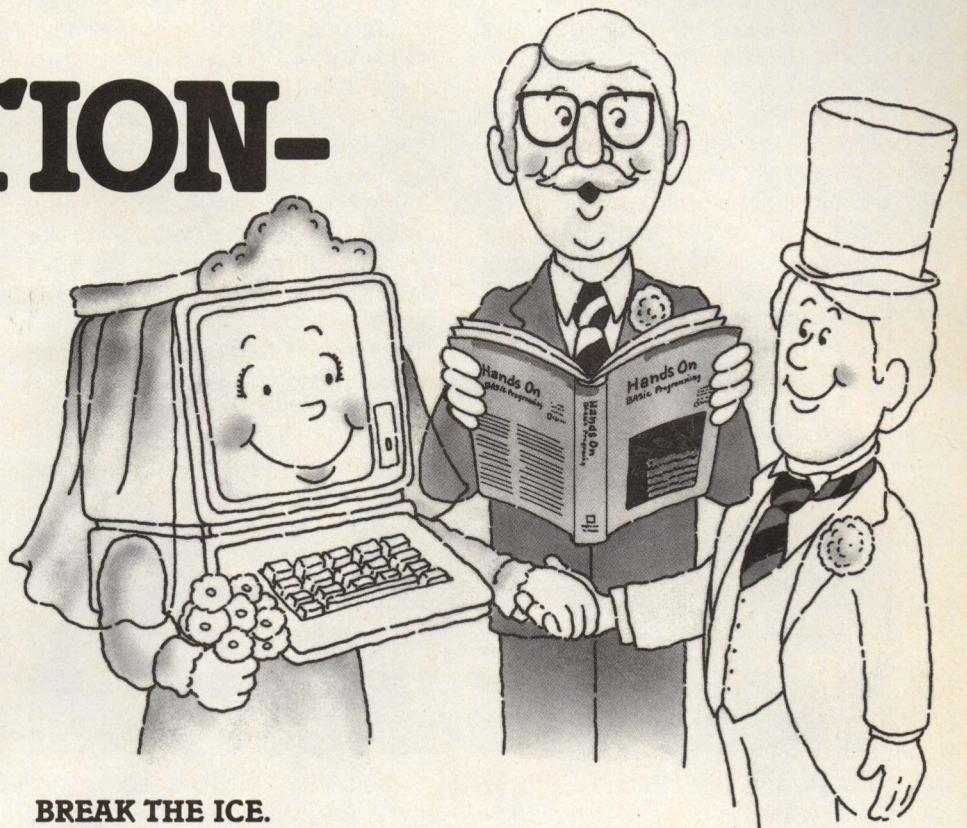
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and restrictions. They are asking the tax payers to pay for it and not seeing the results."

How does Pederson view the home educational distribution channel?

"Over the next five years," he analyzes, "you will see software as a market really cease to exist. It won't be that software isn't moving but, rather, it will be akin to the paper industry. You don't think of the guy selling bags and the guy selling books as being in the same industry. And I think that's definitely what's going to happen in software in that entertainment software will be a market. Educational software will be a market. Business software is a market. And there will be other

such as computer games. So they are a little hesitant to spend a lot of investment dollars right away on educational software. And we have had a lot of people contacting us about joint ventures. I've been amazed at some of the people we have gotten calls from, companies that I would not believe would have any interest in this area. But there are some who would want us to develop something for them. We have certain strengths and they have certain strengths.

"Based on the market studies we have done for our WizWare line, I'm convinced that educational software for kids will be a $100 million market minimum this year. We hope to get 10 percent of that. That's go-

are being sold at $1,000 or less. Every major hardware producer is trying to come out with a machine in that range or less. There's every evidence that once you have a parent involved in buying the hardware and then the software for the home, you will have a tremendous demand for educational software. It becomes a family market.

"We've run hundreds of focus groups with kids and parents and it's very obvious with the parent, that they know they will have to buy software games for the kids, but for every game they buy, they will buy three educational packages. A parent who has just spent $500 to $1,000 for a home computer won't tolerate it just being spent playing *Pac-Man* and *Frogger*. They also believe the computer is something the kids have to learn in order to keep up with the educational system as well as the child next store.

> ## "The current distribution channels are completely unable to cope with the magnitude of the software marketplace."

software markets. Within each of those markets there will be segments and various channels of distribution. We are seeing that already this year. The current distribution channels are completely unable to cope with the magnitude of the software marketplace."

Figures realistic

"A billion dollar market by 1987," observes Scholastic vice president Bruce Butterfield, "I think is more than a fair projection, even with conservative estimates as to what the total software market might be by then. If the entire software market is $5-$6 billion by 1985, and everyone I talk to says I am very conservative on that, if 20 percent of that is educational, you have your $1 billion market. In fact, I think the $1 billion will come sooner than 1987.

"There are a lot of people beginning to realize," he continues, "that there is a good, staple and profitable market emerging in educational software. They wonder, though, if the bucks will be as big there as they are in other markets

ing from zero to $10 million. Right now everyone seems to be testing things out; they have been developing some things for awhile. But in the second half you will see it takeoff. They are wondering just how much money they should invest in developing it and distributing it as opposed to some of their other products. Everyone, though, is asking for it. And they are not asking in terms of 'get me some' but rather 'do you have some educational software?' Or what do you have in that vein that I can set aside some space in my store for?'

"In terms of Scholastic, close to 80 percent of our sales will be retail the first year out, and not through schools, we believe. We don't believe schools are going to buy in large quantities. It's conceivable that the home computer hardware universe will double or even triple this year. And we are taking a hard look at what machines are going into the home. Chances are that any machine under $1,000 is going into a home with some kids in it, and they will need educational material. Right now many machines

Publishing programs

"The number of software programs, the subjects they cover and the age categories are extremely important and that tends to call for a publishing program as opposed to a buy title offering. That's what we are doing, offering an educational software publishing program with software for kids six to 16 hitting various subject categories. We also have strong opinions as to what kids find interesting and fun, as well as educational, at those levels and we are trying to make the educational experience fun for them. You have to remember that the parent is still a little uncomfortable with the computer and that's a key reason why you will see a number of firms combining education and entertainment. The parents also want to feel that 80 percent of that package is self-entertaining and that the child will want to do it on its own."

In terms of distribution, Butterfield notes that Scholastic's book sales force has begun to sell software and is doing quite well with it. The book store attracts a viable customer but the question is will he or she pay $40 for an educational

Testing Your Cable I.Q.

When The Games Network, a two-way, interactive cable concept goes on-line at approximately the end of the year, at least 25 percent of the programming will be educationally oriented material, according to Larry Dunlap, president and chief executive officer.

To date, the upcoming service has acquired via license some 2,000 programs. The majority are computer games, but the service places a high value on educational material.

In fact, the second tier after *The Games Network* is slated to be *The I.Q. Channel,* which will be all education. That goes on-line in 1984.

It was back in March 1982 that Dunlap and Thom Keith, executive vice president and director of international affairs, conceived International Cablecasting Companies, Inc. (I.C.C.), which they claim is the world's first international cable television network. *The Games Network* is the first offspring of that venture.

Part of the initial philosophy of *The Games Network* was to develop a concept that would allow consumers to play a choice of video and arcade games at home without the costly investment of computer equipment.

To date, though, observes Dunlap, there has been a little industry confusion as to what *The Games Network* is all about.

"One thing we are suffering from," he notes, "is an identity crisis from the games industry. We have made every effort, and will continue to do so, to support all the markets within the computer game industry.

"Sometimes people think we are competitive. Just the opposite. We are going out of our way to allow software developers to schedule themselves as to when they want to be on the system. We'll be offering software on a limited access basis so consumers will be inspired to go out and buy the actual disk copies of the software. We are a very supportive part of the environment, not a competitive part of it," underlining a strong radio/record analogy.

"We are also looking at schools to get hooked up to *The Games Network* and eventually *The I.Q. Channel,*" he adds. "We're even looking to get the system in libraries if that's possible. There are a lot of ways we can go about this.

"The traditional school response, though, to this type of thing has not been very innovative, unfortunately. The home, seemingly, is the best approach. Ironically, there seems to be more computer ignorance at the school system level than anywhere else. And prejudice. Frankly, we're finding them behind the scene. It's as though they are teaching our children for yesterday instead of tomorrow."

Why the heavy emphasis on education?

"It's extremely important to us. Probably the most critical political factor involved. We are looking at what we are doing from a global standpoint, since we fully intend to be an international service.

"Many countries will not even consider video games as they now stand. They don't consider them as an acceptable item of data deliverable over cable. That's particularly true in such countries as Japan where the parents are very opposed to video games but highly influenced by educational material.

"Most importantly," he continues, "is that we deal with the cable industry in the United States. And the cable industry happens to be a very political animal. Getting a franchise is dependent upon a city council. And the city council wants to make sure that they are delivering to that community a certain amount of varied programming, specifically items like education or material for shut-ins, programming that adds value to the community. So we want very much to integrate educational-oriented material into the service."

Thus far, *The Games Network* has acquired material from such educational specialists as The Learning Company, Edu-Ware, Spinnaker and others. Other software houses that have granted licensing agreements include: Avante-Garde, Adventure International, Broderbund, Cavalier, CPU, Inc., Datamost, Edu-Tek, Hayden, Micro-Lab, Microsoft, Sierra On-line, Phoenix Software, Piccadilly, Sentinent, Innovative and others.

"We feel," adds Dunlap, "that we can offer the educational software companies one of the strongest economic bases possible."

Other pertinent facts about *The Games Network:*

It's available to any home with a CATV hookup. This is accomplished by installing a minicomputer at the head-end of the cable system. The computer houses software provided by *The Games Network.* Each subscriber receives a compact, powerful microprocessor called the *Wizard 1,* complete with game keypad. The system downloads the game selected by the subscriber via the cable. The keyboard provides all the controls needed for play. Subscribers can choose from a menu of 20 games per month, 24 hours a day. Initial installation fee will be $49.95 with a monthly tab of $14.95 for the approximately $600-$800 worth of software provided.

Group W Cable in Los Angeles, home base of *The Games Network,* will be handling the service locally while Dunlap indicates that a potential six million homes have already been signed for the service nationwide.

Of course, *The Games Network* won't be the only database offering video games or other types of computer software programs via cable. Others are making moves in this direction and even such media giants as Times-Mirror might consider it an option after they begin offering news and other kinds of information via videotext.

Right now, subscribers to The Source, the huge database which is a subsidiary of the Reader's Digest Association, can call up computer educational programs via modem.

Under Education there is *Today In History.*

A Drills section offers such topics as *Orders And Spelling, Days Of The Week, Alphabet Program For Kindergarten Children and Non-Readers, Practice Adding Longer Numbers, Learn The Typewriter Keyboard, Regular And Irregular Forms Of Nouns, Parts of Speech In A Short Story* and on and on.   —*J.M.*

software package there? Book stores are interested, but right now more interested in buying in small quantities. They should become an excellent, steady market later, he predicts.

"The non-traditional account," he adds, "will also emerge, such as the toy store. I'm amazed at the amount of space they are willing to allocate for educational-oriented material. Of course, it has to be packaged very well and some sort of merchandising handle such as a display is required. And it needs to give them flexibility as to how it's used."

Two examples of established computer game firms moving into the educational software arena are

grams, Borta explains, "Not only can the computer teach people about computing, it can teach virtually any subject to people of any age group. I have to agree with Isaac Asimov, who said that the computer is the most efficient educational device ever invented because it makes it impossible for you not to learn. Kids are fascinated by computers and Roklan is now making a major move to provide a wide range of educational programs that are fun to use."

The company has signed an agreement with Scott, Foresman and Company with initial programs—of an estimated target of 30—to work on a variety of home computers, initially the Atari and

California educators.

Packaging will be in four-color with skill objectives and perhaps the screen on the backside. Unlike the games, though, which feature ultra science fiction graphics, the front of the *Hi-Res Learning* series will feature paper sculpted children which will in essence be a trademark of the line.

Here, too, Sierra's thrust will be to the home market, and the programs are designed to appeal to a younger audience.

Another phenomenon entering the educational software market is the educational software distribution specialist, such as Soft-Kat, a new national distributor operating out of Hidden Hills, Calif.

According to president Alan Gleicher, the rapidity of educational software growth will put a burden on both the dealer and the consumer in terms of how to merchandise effectively and what to buy.

Soft-Kat has developed what they call their Educational Computer Center, which is a complete freestanding in-store demonstration station. The station is equipped with an Apple computer and demonstration programs "diligently selected from the top software available." Using the system, teachers, parents and children may select and run programs before they buy.

Among lines carried are Spinnaker, The Learning Company, Terrapin, Inc., Sterling Swift and others.

Soft-Kat plans to have 300 Educational Computer Centers installed in computer stores nationwide by summer. Beyond that the firm feels it's a natural for other types of outlets including audio/visual stores, bookstores, department stores and other retailing categories.

"Everyone knows they have to be in the educational software market," observes Gleicher, "but they're not quite sure yet how to go about it. We are making it easy to get in with our technique. Moreover, we guarantee that educational product won't just sit on a retailer's shelves. An approach of this type will move inventory for retailers. It sells itself." ∎

> ## "There are a lot people beginning to realize that there is a good, staple and profitable market emerging in educational software."

Roklan and Sierra On-Line, the latter also known for its business packages.

First, Roklan. The Chicago-based company is introducing educational programs for children as well as tutorials instructing new computer owners on how to use and make the most of their computers.

Ron Borta, director of Roklan's computer technology group, explains: "In a sense, our games have always had an educational component. The games are responsible for giving many new computer users their first hands-on experience. They arouse people's curiosity and make them more inquisitive. They also improve eye-hand coordination. All of these things make the first-time computer user want to learn more about computers in general and their own system in particular."

One new Roklan package is designed to give new owners of Atari computers a quick, yet comprehensive understanding of their purchase.

Commenting on Roklan's new educational-oriented software pro-

Apple.

Borta contends that the programs will include reading and math action games for children from pre-school age to junior-high. The first six programs are due for June delivery with the remaining programs slated to be spread out over the next two years.

Marketing will be directed toward the home area with the firm believing that interested teachers will observe it at the retail level. The packaging will not be too dissimilar to Roklan's bright game graphics packaging.

Trolls Tale, Dragon's Keep, Bop-A-Bet and *Lunar Learning* are the first four educational software programs from Sierra On-Line. The company's games go under the sub-title *SierraVision*. The education material will feature the sub-title *Hi-Res Learning*.

Nancy Anderton, a former educational director from Random House's children's book division as well as a teacher herself, was brought on-board to oversee the development of the new software. The firm also tapped the educational resources of nearby Northern

Who's Teaching Computer Literacy?

George Abe

By Christine Begole

When it comes to pinpointing who is teaching computer literacy, the most pertinent question may be—who *isn't* teaching it. A glance at the weekly New York Times science section reveals twenty-four listings in the Computer Services Guide—three under "Applications/Training," ten under "Consulting Services," and eleven under "Educational Services"—all declaring their willingness to teach would-be customers all they want to know about computers. Elsewhere in the paper are ads run by retailers who teach seminars, commercial business schools that offer to teach new career skills, and camps that cater to children.

It seems clear that as interest in computers heats up (both for business and personal applications), an increasingly important ingredient in the selling situation will be the seller's ability to teach the customer how to use the product effectively. Consumers promise to become more demanding in this area, and sellers with foresight are anticipating and acting on that need.

A three-tiered approach

Stephanie Burns' firm, called SECT (Source of Educational Computer Training), based in Los Angeles, Calif., targets its services at three basic markets. One is the corporate environment. SECT runs one- and two-day seminars on-site at corporations, to familiarize company employees with their computer system. Seminars concentrate on teaching how to use the system properly and why it needs to be done that way. Class size is generally limited to 16 people per seminar, and the cost runs $90 per person per day. Fifteen different courses are available.

A second type of educational program is targeted at special interest groups such as professional clubs and associations. SECT conducts literacy lectures that last two to four hours for groups that range in size from 60 to 600. These lectures differ from corporate seminars in that they are horizontal in focus, covering a far broader range of material in less depth.

Four different lecture programs are available, each addressing a different group need. One is a pre-sale lecture that discusses how to go about buying a personal computer; another is a post-sale lecture that discusses what one can do with a computer; third is more general, describes computers generically; and the fourth option is aimed at corporate decisionmakers who know their company will be involved with computers but are not clear on the ways this will affect their business (it's called "What Business Do Computers Have In Business?"). SECT's lecture fees range from $500 to $1500, depending on the size of the group.

The third way SECT is involved with computer literacy is in the authorship of computer training products and user manuals. SECT developed the Start•pac product for Osborne. It is an audio cassette coupled with a workbook that serves as a step-by-step self-teaching introduction to the Osborne personal computer. Included are explanations of how to use CP/M, *Wordstar,* and *Supercalc.* Osborne dealers carry the product at a suggested retail price of $49.95. SECT is working on similar projects for other manufacturers, including a user's manual for Fujitsu's personal computer.

Walk-in training center

Food for Thought, a retail operation in Tucson, Ariz., provides an entirely different approach to computer-use training. Twenty-four computer terminals are available to anyone who walks in to the store for an hourly fee. Food for Thought staff members talk with interested customers to qualify their needs and determine what type of learning experience the customer wants. If the customer has used a computer before and they are interested in exploring word processing software, for instance, they may

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only need a word processing manual to get started with the self-help learning, with occasional help from the desk staff.

For more complicated goals, or if the customer has time constraints, one-on-one tutoring can be arranged for a fee of $15 to $30 per hour. If appropriate, the customer may also want to make use of some videotapes available at Food for Thought. One is available to learn about FMS-80 (a database management software program); another is a general introduction to computers. For customers interested in learning to use their Apple computer, the "Know Your Apple" program is available for on-site use.

Hourly charges are $5 per hour

specific goals and applications needs and we can solve his problems faster. It's the most effective teaching method we've found."

Learning centers

The overall goal of Erin Learning Centers of Long Island, NY is to get people to use the computer effectively for office functions. Erin runs one-day, applications-intensive courses for small groups of businesspeople. Each course zeroes in on only one particular application—it may be word processing, electronic spreadsheets, accounting procedures, or others that are among a total of 20 options. Average class size is four students per class, but class size varies any-

pon with each of its computers sold in the New York metropolitan area. Kelly believes that this will lead to great business use of small computers. Erin's arrangement with Zenith solves a previous problem, according to Kelly. Personal computer manufacturers could not offer the customer training support that mainframe and minicomputer companies provided. "Zenith customers can now come to us for as much or as little training as they need, for either executives or staff, on whatever software and functions they want to use."

Department stores

Macy's New York opened its Computer Store in January. Nestled in its own enclosed area within the larger Electronics Department, it is aimed at wooing possibly wary department store customers. Staffed by trained computer specialists, the Computer Store runs both lectures and seminars to teach computer literacy on a number of different levels. Every week hour-long "Introduction to Computers" lectures are available free of charge. At press time, lectures were being run one a day, at different times each day of the week. The lecture provides an overview of computers, primarily for people who are on the verge of buying a computer. Maximum class size is 60 people per session.

> Macy's also offers two individualized learning opportunities. One is for a prospective Apple IIe purchaser. Macy's provides a hands-on, three-hour training session for $49. The cost of the course is similar in approach, but aimed at the customer who has been qualified by a salesperson as a likely IBM Personal Computer purchaser.

for non-members, $3 per hour for frequent customers who have chosen to join Food for Thought's "club." Memberships cost $30 per month (includes 10 hours free terminal time) plus a one-time initiation fee of $10.

Ed Sanders, president of Food for Thought, says that the company has tried two-to-three-hour seminars, but have found that they are not really an effective teaching method. "We've found that in group-oriented seminars people often don't get the information you're trying to give them. It's easy to miss the mark on an individual's needs. Your presentation level often doesn't match their needs. Business people have better things to do than feel lost at a seminar, and they often leave feeling disillusioned. Tutoring one-on-one, we can address each individual's

where from three to six students per class. Twenty percent of Erin's classes are held at Erin's Great Neck headquarters, while eighty percent are held on-site at participants' place of business.

One secret to Erin's success is use of manuals that are laid out "cookbook style"—providing the students with a step-by-step, function-by-function, self-teaching approach to learning. About 50 percent of the course time is hands-on experience; the rest is personal tutorial. Frank Kelly, Erin's president, believes that more hands-on time than that, results in confusion and a lack of reinforcement for students.

Cost is $110 per student per session, and courses are available to companies and individuals in the New York metropolitan area.

Zenith Data Systems is providing a $110 Erin Learning Center cou-

A more specific learning experience is provided by software specialty seminars. Designed to provide an opportunity to see how particular software packages work, seminars accommodate audiences of up to sixty people. Seminars are given at no cost to participants and are often run by the training specialists provided to Macy's by the software manufacturers themselves. An example of the variety of seminar topics can be found in a week's schedule offered this winter. It included: a *VisiCalc* seminar, an Inventory control/General Accounting seminar, a *Wordstar* seminar and a Dow Jones seminar. Each seminar lasts about an hour and can be attended for free simply by

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making a reservation.

Macy's also offers two individualized learning opportunities. One is for a prospective Apple IIe purchaser. Macy's provides a hands-on, three-hour training session for $49. The cost of the course may be applied toward the purchase of the Apple IIe. The second course is similar in approach, but aimed at the customer who has been qualified by a salesperson as a likely IBM Personal Computer purchaser. Also three hours long in duration, this course's cost is $99—also applicable toward purchase of the computer. Both individualized courses are limited to a maximum of 10 students per session, two students per machine.

and logical concepts, the BASIC one works more with sound, color, graphics, music and speech.

Vacation-time learning

Atari, Inc. offers two ways to combine taking a vacation with learning about computers. Atari Computer Camps are available at seven sites for two-through-eight week sessions, for youngsters aged 10 through 16, and Atari Computer Workshops are also available at eight different Club Med sites for vacationing adults.

Atari Computer Camps have flexible programs designed to meet the needs of campers who arrive on the first day with different

free time for pursuing computer projects is provided. "We have no problem getting campers to spend plenty of time working on the computer projects," assures Linda Gordon, Atari Computer Camps' Executive Director. "Our problem is to successfully encourage campers to pursue other outdoor activities like tennis, swimming, and team sports!"

Campers at each site have an extensive software and book library available for their use. They also have the opportunity to use robot "turtles," voice synthesizers, and graphics tablets. Costs range from $890 per child for a 2-week session, to $1,690 for a 4-week session, to $2,950 for an 8-week session. Additional single weeks may be added to any of the above-named sessions at a cost of $425 per week.

Computer Workshops for adults are available at eight Club Med locations: including Eleuthera, Guadeloupe, Ixtapa (Mexico), and Copper Mountain (near Denver). Also, this summer an integrated "computer village of the future" will be in place at Fort Royal in Guadeloupe (June 10 through September 11) and an ongoing series of mini-workshops will be offered so mind and body can be revitalized in the same vacation spot. Costs for one week are about $1,000.

Additionally, Six Flags Magic Mountain, Valencia, Calif., will be constructing a 3,000-square-foot Computer Discovery Center sponsored by Texas Instruments, Lubbock, Texas, at the Valencia-based park. The center will offer hands-on computer experience via TI 99/4As.

The software is expected to be designed for five different groups—teen-agers, adults, men, women and children—to keep in tune with the park's family demographics. Short films narrated by Bill Cosby will also be featured there.

> **Texas Instruments offers five different learning opportunities in over 100 locations in 27 metropolitan areas nationwide. Each is a 10-hour course, divided into four 2.5 hour sessions, given over a two-week time period, two each week.**

Computer awareness

Texas Instruments offers five different learning opportunities in over 100 locations in 27 metropolitan areas nationwide. Each is a 10-hour course, divided into four 2½-hour sessions, given over a two-week time period, two each week.

Two courses are designed for adults. One is the Adult Computer Awareness Program—designed to give adults an in-depth hands-on introduction to the computer applications. The second is BASIC Programming For Adults.

Three courses are for children aged 8 to 15. The Children's Computer Awareness Program serves as an introduction to computers, with emphasis on how computers work and how they can be used. Programming Discovery in TI LOGO and Programming Discovery in TI BASIC are both programming oriented. The LOGO course is geared for children interested in geometrical, mathematical, spatial

amounts of previous experience. Each child is interviewed on the first day of camp to determine proper placement in either beginning, intermediate, or advanced classrooms.

All beginners start to learn with a computer readiness module which teaches them how to use different kinds of software and familiarizes them with the fact that there is a whole spectrum of software available. Beginners are also taught elementary programming in PILOT and LOGO. Students who are ready may also learn the fundamentals of BASIC.

Intermediates learn programming in PILOT and BASIC languages, with heavier emphasis on the latter. Advanced students pursue independent study.

All campers participate in two scheduled classroom periods each day—a 1½-hour session in the morning, and an hour-long session in the afternoon. Lots of additional

More and more are realizing that one key to software sales is computer literacy. ∎

Christine Begole is a New York-based writer specializing in consumer electronics subjects.

Pirating, Counterfeiting & Bootlegging

The real game for the determined computerist is not in paying and playing but rather in busting the wide array of security techniques now used by many software publishers.

By Ken Winslow

Just as the chemical PCB is dangerous to the environment and the health of all it touches, so is Software PCB—Pirating, Counterfeiting and Bootlegging—now heating up to a crisis point for the game and computer industry.

Growing reports from every level and corner of the industry indicate pirating, counterfeiting and bootlegging are on the upswing. It's hitting every sector from look-alike location and home arcade-style games to cartridges to disks and tapes.

Jammie Pinto of Atari's arcade division says the company is constantly wrestling with trademark and copyright infringements. Atari won a case against three defendants last October over its *Asteroids* arcade game. Cases in current litigation concern *Dig Dug* and *Centipede*. A raid on an illegal Las Vegas manufacturing location resulted in seizure of circuit boards, copying and manufacturing equipment and a list of customers around the country who had received shipment of the illegal games.

Pinto says Atari chases down every lead and has the equipment confiscated. "Leads come in from location owners and even players who report something funny or wrong," says Pinto.

The increasing practice of competing manufacturers to make cartridges that work on each other's players not only confuses retailers and customers but strides a narrow line of potential violations. Every month brings with it a new series of claims and counter-claims. Cases over who owns what rights to today's hot game will be tied up in the courts long after it's forgotten by everyone but the litigating lawyers and retailers who are still trying to blow it out.

The real problem lies not so much in dedicated and cartridge technology, but in computers which use easy-to-copy disks and tapes.

Clubs formed by purchasers of like brands and models of micros are often no more than "pirate dens" for which the initiation fee is the contribution of a game or program that no one else has—but not for long.

An example of an outstanding formally organized user group is the 2,000 member Apple Pi club of the Washington, DC metro area which holds regular meetings and issues a monthly 50-plus-page newsletter, all for annual dues of $18. The club conducts an educational and information program for members and has good relations with software suppliers and retailers, for which it carries advertising in its newsletter. Members are encouraged to share their own developed programs, but on occasion this inevitably includes swapping of copyrighted software.

Easily done
Program and full text pirating can be and are too easily done by computer owners with one or more disk drives; among owners by means of telephone connected modems; and downloaded from public bulletin boards as well as from commercially offered special and general online commercial videotex services such as the Dow Jones News Retrieval Service, CompuServe and The Source for unauthorized redistribution.

This writer, who is a contract information provider for CompuServe, has more than once run into his own copyrighted material redistributed without prior permission on public bulletin boards run by private individuals and commercial concerns.

Software buyers see hardware prices being slashed everywhere and expect the same for software. But when they run into software prices which on some occasions can be almost as much or more than the cost-reduced hardware on which it runs, the temptation to turn to cheaper and likely counterfeit or bootleg copies becomes almost overwhelming.

The wide pricing swings on legitimate products without a clear justification explained to the user also opens the door. The great difference between a top selling *WordStar* word-processing program listing at $495 and the less capable but still very effective *Bank Street Writer* at $69.95, can easily mystify an unaware user and gives the bootlegger a wide price window into which to drop pirated and counterfeited product.

The real game for the determined computerist is not in paying and playing but rather in busting the wide array of security techniques now used by many software publishers. It's a real-life, high-stakes challenge few can resist.

For this article we located a computer program pirate who has his

own copy of *Locksmith* issued by Omega Microware, Chicago, Ill., one of a number of programs available for breaking security. This, incidentally, was a pirated copy of *Locksmith* along with a many-times reproduced and almost illegible copy of a description of how it all works taken from an issue of *Hardcore Computing.*

Locksmith starts with the premise, and rightly so that many computer programs have in the past both encouraged and instructed purchasers to make protection or backup programs in case of contamination or a crash. The first thing the Radio Shack TRS-80 manual tells you is how to make duplicate working copies of purchased pro-

as our pirate used his own purloined *Locksmith,* which started off with a top menu entitled. *The Software Pirate's Skeleton Keys,* to try and breach the defenses of a *VisiCalc* program. The number of options, routines and permutations among which he had to pick his way proved to be a tremendously complicated maze game in its own right in which the real prize was a working copy of a valuable piece of software. We left before becoming an accessory after the fact.

As an offline reference, the extensive printed information reproduced from *Hardcore Computing* identifies special "tracks to copy" and "parameters to change" information for specific copyrighted and

possible because sales to the great mass market lying beyond computer programming buffs depend on being able to "do something" with their hardware.

But good quality game and productivity programming takes time and expertise, which adds up to money to develop.

As much as the manufacturers want to encourage the development of widely available low-cost and even free programming, they seem to be at odds with themselves as new models are tumbled helter skelter into the market which obsoletes previously developed programming. The recent trend to have their models use a standard CP/M language helps to reverse this.

Manufacturers' efforts are varied. Apple has given grants to professional users for the development of education and training programming. Radio Shack publishes an *Applications Software Sourcebook* directory to thousands of vendor-listed game and productivity programs for home, business and educational use. Radio Shack's newsletter and other publications also offer full documentation for those who want to key in their own, an arduous task to say the least.

The best approach, however, is for the hardware manufacturer to pay publishers to provide ride-along software to be acquired at the time of hardware purchase and to fold the cost of it into the retail price of the machine or to help retailers offer such software as cost-reduced premiums. This is working nicely for Osborne.

Too many in the industry outside of directly affected software publishers listed above seem to think that a little piracy, counterfeiting and bootlegging—like inventory shrinkage—is just a cost of doing business. But that's like being only a little pregnant.

Seemingly insignificant today, when both the hardware and software sales are annually doubling or better, and when the major concern is legitimate competition and getting and keeping market share; nevertheless, software PCB is a

> **Too many in the industry outside of directly affected software publishers listed above seem to think that a little piracy, counterfeiting and bootlegging, like inventory shrinkage, is just a cost of doing business. But that's like being only a little pregnant.**

grams and to put the store bought original away for safekeeping.

Locksmith was brought to market in 1981 when software publishers started to manipulate the technical parameters of their programming to prevent what they found to be a rising amount of piracy.

Says the explanation regarding *Locksmith,* "Instead of providing users with better backup policy, software vendors decided to escalate the battle by developing more complicated—and in some cases, bizarre—protection techniques. Because of the several different techniques now in use, it is likely that many disks will require some input from the user in the form of parameter changes."

It is the analysis and the contravening of identified parameter deviations that really tests the mettle of a micro pirate.

Abject fascination

We watched in abject fascination

trademarked programs from publishers including Apple Computer, Avante Garde Creations, Adventure International, Budgco, BPI, Broderbund Software, Cavalier Computer, Continental Software, Data Most, Data Soft, Howardsoft, Infocom, Innovative Design Software, Lightning Software, Magna Soft, Micro Lab, Mind Toys, Online Systems, Personal Business Systems, Picadilly Software, Professional Software Technology, Riverbank Software, Sirius Software, Sentinel Software, Softape, Silicon Valley Software, Turnkey Software and Visicorp.

This listing ended with, "This parameter information is (an unauthorized downloaded?) reprint of several files maintained on The Source. If you have additional information to add, send it (in)..."

Hardware manufacturers understandably would like to see as much free or public domain programming become available as

cancer that will grow and grow to take on a life of its own even when the business begins to level off in the years ahead.

Lessons learned

Because major segments of the music and video industries failed to give proper attention to PCB in their early years of growth, each is paying the piper today. Retailers in each of these industries are being hit hard.

The Recording Industry Association of America (RIAA) now estimates that for every music album legitimately sold through retailers today, another one is illegally pirated by individual users (disk to tape, tape to tape), tape downloaded off of broadcast, or commercially counterfeited and bootlegged.

RIAA has a full-time Anti-Piracy Unit which works with FBI, state and local law enforcement units and last year alone initiated over 52 sound software PCB actions in 20 states, executed 43 court issued search warrants, made 36 arrests, began 73 criminal prosecutions of individuals and corporations, and in the process confiscated some $65 million in illegally used and made product and equipment.

Total economic loss of the now runaway software PCB to the recording industry—and that includes retailers just like you—last year is estimated by RIAA to be over $350 million.

With the recording industry now at a plateau, the only part of it continuing to show growth is piracy, counterfeiting and bootlegging. Major music software supplier Warner Communications says in its year-end report that a major factor in its reported 38 percent drop in revenue from '81 to '82 was piracy.

The younger video software industry is also hurting at every point in the distribution chain.

Manufacturers, in the form of the Motion Picture Association of America (MPAA) are normally at odds with distributors and retailers but have, nonetheless, joined hands in sponsoring a piracy 800 hotline. Retailers running into unfair competition from video software PCB are constantly urged to report it.

Video software retailers are the ones getting squeezed between free wheeling, happy-go-lucky pirates and the over-reactions of psychotic suppliers. Video bills in this Congress are designed to slap a royalty tax on the sale of both video-cassette recorder hardware and software to be divided among software producers and also to take major legal control over the way video software retailers are able to run their business. This should give game and computer software retailers an idea of possible future consequences of growing and hard-to-control piracy, counterfeiting and bootlegging.

On the retail level, some software merchandisers haven't noticed too much of an impact from disk-based pirating, counterfeiting and bootlegging—partly because the computer hardware and software business is still in such an upward spiral.

"If it is widespread," observes Kay Elliot of the Computer Kraft Software Center, Houston, Tex., "we haven't noticed it too much, nor has it seemed to have a strong impact on sales. What there is of it appears to be more underground.

"I suppose," she continues, "that we get the standard number of customers who come back just wanting to acquire additional documentation and not another complete program package."

Members of the Amusement Games Manufacturers Association are urged to report every instance they run into to the Association's headquarters. Thirty eight software publishers have recently joined to form a Microcomputer Software Association with anti-piracy given a high priority.

Cuadra Associates, Santa Monica, Calif., a widely known and respected company working in the online data base field, has just announced an extensive multi-client study of downloading piracy and the ways to deal with it.

Because the magnetic disk part of the technology—expanded memory personal and home computers with copying, up- and downloading and telecommunicating

> **Because the magnetic disk part of the technology—expanded memory personal and home computers with copying, up- and down-loading and telecommunicating capability—is now growing at the expense of the closed or dedicated ROM and cartridge system, software PCB is going to get worse. It hits every step in the channels of product flow—and this particularly includes your cash register.**

capability—is now growing at the expense of the closed or dedicated ROM and cartridge systems, software PCB is going to get worse. It hits every step in the channels of product flow—and this particularly includes your cash register.

Take every opportunity to point out to your customers and user groups that pirates steal from everyone, including themselves. Everyone wants new and better software. But no matter how gifted, software producers and publishers can't live by only selling one copy—and neither can you.   ∎

Ken Winslow, *based in Washington, D.C., is a writer, columnist and an analyst on video software technology, techniques and programming.*

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Uncle Sam, The Software Man

Dozens of other Federal agencies are also recognizing that their ever-growing inventories of software may have applications beyond the corridors of government.

By Gary Arlen

The Government Printing Office, supreme paper purveyor in a town of paperwork peddlers, distributed more than 36 million documents last year—certainly qualifying the federal government as a major information source. So like any big publisher in this electronic era, GPO is looking at ways to put its material into computer format.

Meanwhile, dozens of other federal agencies are also recognizing that their ever-growing inventories of software may have applications well beyond the corridors of government. Scholars, business executives, scientists and other computer-equipped Americans are interested in dipping into Uncle Sam's software files, just as they have been flocking to GPO's billions of pages of paperwork over the years.

Major questions still loom, however. The explosive growth of microcomputer usage has outpaced the federal government's capacity to put its software into the programming pipeline. Moreover, significant issues about how the government will offer its software have barely been broached. Some education and business programs could enjoy widespread distribution. But the government officials involved with the issue have not yet decided how or if private industry—including booming software vendors—will figure into the process.

To help coordinate the software situation, an Office of Software De-velopment has been set up within the Department of Commerce. Among its first projects was the collection of programming information from civilian government agencies. The result is the *Federal Software Exchange Catalog,* an annual publication which now lists more than 500 computer programs available to government agencies (including state and local bodies) as well as to companies or individuals needing information on specific topics. Prices generally range from $100 to $1,200 per program.

Predictably, many of the titles lean toward the very esoteric: *Cartographic Automatic Mapping Program, 5th Edition, Mine Ventiliation Network Analysis* and *Computerized Methodology for Evaluation of Municipal Water Conservation Research Programs* aren't likely to make the top ten list of best-selling software. Nonetheless, many other financial, economic and safety programs could be of substantial interest among business and academic audiences.

Because the government's computerware was primarily developed for internal use, most of the software is written in advanced computer languages such as Fortran and Cobol. Among the tasks of the government computer task force is identification of material which deserves to be translated into the more popular languages of microcomputers to make it more available to non-government users.

It started here

Government's involvement with the latest wave of computer development is understandable, given Uncle Sam's long-time connection with the computer business. According to some computer historians, Washington first got involved with data processing devices when a Census Bureau employee invented a rudimentary punch card and tabulation machine which was used to tally statistics from the 1890 national census.

Since then the government has plunged deeply into computer activity. Uncle Sam now owns nearly 16,000 computers and leases more than 1,500 others. About 200,000 bureaucrats are involved in the care and feeding of that computer strength. But, as is often the case, size leads to disarray—and a common complaint is that there is little uniformity among all that hardware and software.

Moreover, despite the best efforts of the new Office of Software Development, some of the confusion is likely to persist. Some Defense Department programs, of course, will remain classified and off-limits to prospective users. And agencies like the National Aeronautics and Space Administration (NASA), which has an attractive roster of scientific and research data, coordinate distribution separately from other federal software.

Another issue complicating government software distribution is the question of "Who owns what?" Since government software is not proprietary—just as government publications cannot be copyrighted by a federal agency—all software is available to anyone who wants it (with certain security restrictions, of course).

As things now stand, users must sign releases which affirm that the material will not be copied or distributed into other countries—is-

sues which bring up questions of trans-border data flow, data duplication and other thorny legal matters which are certainly not unique to government-owned software.

Indeed, the deeper you get into the issue of Uncle Sam's software, the more difficult the questions become. There are politically sensitive matters, such as "Who should control the database?" Although the bureaucrats who create and maintain software are generally immune from partisan politics, their higher-ups can potentially shape the appearance of some computer information. Government watchdogs who fret about such situations are only now beginning to direct their attention to potential abuses in areas such as this.

Things to come

Despite the problems, many government officials are striving to accelerate the pace of the federal government's activities in software distribution. Again, a major hurdle is the complicated maze of Washington bureaucracy—with several

agencies jealously guarding their political turf as Uncle Sam tiptoes into software.

There's heavy momentum building up, though, to encourage the government to become a full fledged electronic publisher. Some publications—such as the Congressional Record—are ideally suited for online electronic distribution, making information available immediately to anyone with a communicating terminal. Other items, such as business and research data, will work equally well with stand-alone computers—becoming software tools for scholars, business executives and anyone else who needs to dig into the growing mountain of government resources.

Electronic facilities like these may also offer vast new opportunities for collateral software. By adding keyword search and computer indexing to the online or magnetic software, Uncle Sam can make it easier to find specific material within the behemoth databases now being developed. But again, those

are the kinds of problems Washington is beginning to address.

For now, users of government software are finding they must develop their own research tools to dig into the federal data collection. Companies are buying specific databases and then analyzing the information to their own needs. A prime example is Census Bureau findings, which have been purchased by marketing firms which want to develop demographic studies for their own purposes. A recent New York Times front page story exemplifies such an application: the newspaper commissioned an independent computer company to sort out statistics from a census database—information which became the basis for an extensive analysis of population trends. It's that kind of specialized application of government-held data which may become the most promising feature of Uncle Sam's software collection.

Futurists who see widespread use of computers in the coming years predict a variety of other ways in which government activities will fit closely into many parts of our lives. The Defense Department and Agriculture Department are already experimenting with microcomputer products to be used for activities such as individual identification—useful for security clearance and as an electronic replacement for food stamps (thereby possibly avoiding some of the abuses of programs like the food stamp service).

Further down the road are developments such as electronic income taxes. Computer users who tally financial records on their home computers could mail an electronic disk version of their 1040 form into Uncle Sam on April 15. Alternatively, the data could be downloaded via communicating terminals—meaning that the phone lines rather than the mail boxes would be loaded in mid-April.

Such possibilities underscore the ancillary problems of putting Uncle Sam in the middle of the computer revolution. Strong public outcries about privacy, security and

Finding Government Data

Most of the information about the federal government's computer activity is being coordinated through the National Technical Information Service and its subsidiary Office of Data Base Service. The Federal Software Exchange Center, which publishes the *Federal Software Exchange Catalog,* is also affiliated with NTIS, which itself is an agency within the U.S. Department of Commerce.

NTIS sells printed and electronic catalogs which list computer software now available. The catalogs, clearly cross-indexed to identify contents of various programs, machines on which they work, languages and categories, vary in price. They are available by mail and NTIS accepts American Express, VISA and MasterCard as well as other forms of payment.

Information about the various NTIS computer software services is

available from the National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161. To phone the NTIS Office of Data Base services, call (703) 487-4807. The NTIS Federal Software Exchange Center is at the same address, phone (703) 487-4848.

Subscribers pay $75 per year for the Federal Software Exchange Catalog, which includes the hefty book plus updated supplements. A related agency, the Federal Software Testing Center, has introduced another catalog this year which contains reports about developments in government software.

NASA software is handled by a contract distributor. The NASA database is called COSMIC and is available on microfiche ($10) and computer tape ($50). The catalog is available from the University of Georgia, Barrow Hall, Athens, GA 30602; phone (404) 542-3265.

—*G.A.*

The Long and Winding Legal Road

To those who think of Congress and the courts as stodgy institutions caught up in arcane political and theoretical issues, it may be hard to imagine that lawmakers and judges are at the heart of many matters which will affect the development of the computer software industry. Of course, celebrated cases such as the suits and countersuits among Atari, Mattel, Magnavox (Odyssey), Coleco and others over dot-munching games and other computer programs put a spotlight on the delicate legal situation in the software world. But dozens of other cases are bubbling up which could encourage software dealers to get a law degree—or at least hire a good attorney.

The legal issues affect every part of the computer software business—starting with things as fundamental as the definition of "software." According to some interpretations, software is an intangible product, and therefore, under the Uniform Commercial Code—a foundation building block in business—software may not be subject to sales tax. A Michigan court recently ruled that software is intangible and thus not subject to such a tax. And the California legislature is considering changes in its law which would put custom-made computer programs and pre-written programs into the same classification (they are now treated as different types of items). The matter of definition and classification is likely to bounce around courts and legislative bodies for years to come, some experts say.

But even basic problems like these pale in comparison to the massive policy issue now taking shape. According to Alex Roth, a Washington-area attorney specializing in computer law, there are dozens of problems which a software merchant should know about. The hazy aura around many computer laws poses many dangers for an unknowing dealer, Roth points out.

For example, it is very easy for a merchant to deal illegally in computer programs. There is a law which allows the creator or inventor of computer software to retain a patent or copyright on that program. But it still isn't clear how to enforce those laws. The current computer copyright law only requires that the first and last 25 pages of source codes be placed on file in the Copyright Office. That often means the guts of a program isn't on record. Despite this gap in the law, there are other regulations that suggest anyone dealing in pirated or unauthorized software can be subject to legal action. Hence a retailer selling questionable software could find himself on the receiving end of a copyright lawsuit.

"Software merchants should have a clear, written understanding with their suppliers to make sure the supplier will defend the merchant against any claims of patent, copyright or trade secret infringement," attorney Roth cautions.

Another legal matter arises from the fast growth of the U.S. computer business and the appetite overseas to catch up with America. New Reagan administration policies on export controls could pose problems for dealers who sell material for delivery overseas. Roth cautions dealers to be wary of shipping orders out of the country, even if the customer pays on the spot.

Sometimes the situation can be foggy. International travellers stock up when they visit the U.S.—leading to possible problems for a dealer.

"If a customer with a heavy foreign accent buys sizeable quantities of material and asks if it can withstand a long sea voyage or asks if it will work on foreign electric current, the dealer should be cautious," Roth points out. Roth suggests that dealers should seek advice from their own lawyers if they find they are involved in such situations.

The foreign trade issue is a two-way street. Following complaints by Apple Computers and other firms, the U.S. International Trade Commission is investigating complaints that foreign-made merchandise which violates certain patent and copyright laws is being brought into the U.S. This goes beyond mere piracy (although that's a problem in itself); some software makers are using legitimate programming to develop "off-brand" software. "If a merchant finds a good source for compatible software (i.e. an inexpensive product line), it could be that he is dealing with infringing product," Roth adds.

These international issues may be merely of passing interest to most dealers. But they underscore the murky area of computer law—topics which are likely to face continuing court and Congressional examination as the computer business picks up steam.

As an example that touches every businessman, decisions still have to be made on how to value and assess software for tax purposes. Is the value of a diskette based on the $3 manufacturing cost for the material? Or should it be based on the prorated value of the program itself, which can run into the dozens or hundreds of dollars? Those fundamental questions, argued in other industries before (such as publishing and motion pictures) may have to be hammered out again to apply specifically to computer software.

Computer software is also getting more attention on Capitol Hill. For the past decade, the legislative hoppers have had more and more computer-related bills introduced each year; as many as a hundred proposals affecting computers and information policy come in—most of them only remotely related to computer software. Many proposals languish and die without any action.

But experts look for stepped-up activity in the next few years. For one thing, most senators and congressmen now have day-to-day familiarity with computers, if only because Capitol Hill has been widely equipped with computers, or at least word processing equipment. Moreover, many new members of Congress are coming to Capitol Hill from jobs where they encountered computers (not the least of whom is the junior senator from New Jersey, Frank Lautenberg, who had headed ADP, a major data processing firm). This new breed of legislators may feel more comfortable dealing with complicated and esoteric legislation affecting the computer industry, analysts contend.

In addition, there are other reasons for Congress to become involved in computer affairs. Conflicting and confusing court rulings often send affected parties to Congress, asking for legislation to resolve disparities.

—G.A.

"big brother" will crop up as Washington makes moves to distribute computer software.

Looking further ahead

Individual government agencies are exploring other high-tech electronic services which may become valuable resources to the general public. For example, the Library of Congress recently awarded two pilot project contracts to use laser disk technology for information preservation and management. Sony and Teknekron Controls will work separately to develop systems for computerized storage, preservation and retrieval of print and graphic material. The prototypes set up at the Library of Congress could work their way into the public sector in a variety of ways— offering tantilizing opportunities for merchants who want to find archival treasures.

Specialized information services are also beginning to take shape which will lead, at some unknown future date, to sizeable new projects. Weather information, business, health and scientific data are progressing into the pipeline.

The Agriculture Department is now testing a service which encodes weather, commodity and other data of use to agribusiness into the signal of the Public Broadcasting Service. That data is available instantly to farmers across the nation and can be downloaded and manipulated through home computers. The possibility exists that this sort of transmitted data can be woven into historic programs stored on disks at the user's location—offering a greater perspective to use with the current data.

Various government agencies are also cooperating with online information projects, such as the videotex services popping up around the country. Weather Bureau data, shoreline information, even police reports on traffic conditions or crime reports are finding their way into the database of several videotex and teletext services.

As is often the case with government activities, Uncle Sam's arrival is late and somewhat clumsy.

Nonetheless, the growing government presence cannot be ignored.

In today's political climate, Washington is unlikely to create or market computer programs which compete with the efforts of private industry. Nonetheless, a considerable number of government-made computer programs may develop a following among special-interest groups which are interested in that type of information. Financially strapped Uncle Sam may have to look to new outlets—other than mail order from Washington—to distribute its material.

The "ifs" and "hows" of such arrangements are just now being examined for the first time. It will be fascinating to watch how big government hops aboard the software express.

At the retail level

Most dealers located in cities are oblivious of the argricultural software market and government software. At the ComputerLand in Huntington, W.Va., manager Jack Fannin says that most of his customers are city people.

"One gentleman was interested in a computer to help him run his greenhouse," Fannin remembers. "He sold plants to farmers. He wondered what a computer could do for him. I showed him a spreadsheet." Most of Fannin's farming customers work at the local factories and run small farms on the weekends and in the evening. He feels, "They're not sophisticated enough that a computer would help them get enough return to justify the financial outlay. They have maybe a couple of acres each; they split it up between corn, beans, and a few other vegetables. The county assistance agents help them with any questions. The assistance agents would more likely be the market for such software."

In Burnsville, Minn., a spokesperson at Computer Professionals finds a less than five percent demand for agricultural software. Those farmers that do come in are looking for farm accounting programs.

Down the road in Wilmer, Minn., Paul Nordin, president of Tri State Digital Products, feels that most retailers are completely missing the agricultural software mark(et). "It's the largest on-tap market left," he exclaims. "We'll do a two-day Apple Expo with general introduction classes, general business classes and farm classes. On the average, a hundred people attend and over half are farmers. We opened up a third store this winter, in the midst of

> There's heavy momentum building up, though, to encourage the government to become a full fledged electronic publisher.

a snow storm, and we still had 30 or so farmers show up. This market is just coming alive."

Nordin, finding that most farmers were desperate to obtain agricultural management programs, helped to create *The Reaper,* a program now offered by The Reaper Software Company, Wilmer, Minn. Running on the Apple (and soon to be adapted for the IBM PC), it is used for financial information, crop analysis, chemical analysis, crop position reports, field history, available storage and other pertinent grain management applications. Nordin also sells quantity on *Assistant Producer,* manufactured by Harold Tucker in Minneapolis, a program devised for hog breeding, from farrow to finish.

"We've had a high demand from farmers," he concludes. "It used to be, all we could give them was general ledger. We'd like to see them with good software." ∎

Gary Arlen is editor and publisher of International Videotex Teletext News *and* Teleservices Report, *trade newsletters published in Washington, D.C.*

Out Of The Mouths Of....

Terri Lande

By Faye Zuckerman

Parents, teachers, aunts, uncles or anyone who consistently has contact with youngsters certainly remembers being victim of a child's constant running commentary of bits and pieces of conversations he/she overheard. Inevitably a child will hear something confidential and parrot it for whomever. Usually, all an adult can say after being zapped by a youngster's zinger is "out of the mouths of babes."

It is no secret that children tend to give honest opinions, say exactly what comes to mind and react in a manner indicative of how they feel. When a new genre of gadgetry comes along and youngsters show a natural affinity for such gadgetry, it makes sense to let them be the judges and jurors deciding a product's future.

So, out of the mouths of babes come software evaluations.

Manufacturers for years have tested their products out on testy youngsters as well as adults. Most manufacturers, in fact, spend a lot of money and time planning marketing tests and deciding on test markets. With the number of software packages entering the marketplace at an overwhelming pace, several retailers have turned to the younger generation to help in the evaluation process.

Now formalized

Having a team of demon youngsters sort through software usually starts and remains a grass roots effort for most retailers. Only occasionally will it turn into a formal procedure or an effective teaching tool. But such happened in La Mesa, Calif. when Herb Fischer, president of Major Video Concepts, Inc. approached his son's high school principal with an idea he thought was great, he explains.

Now, Fischer and the high school offer software evaluation as a learning experience. Fischer gives an EPROM of a game to three or four students deemed "academically qualified" to scrutinize the product. While studying the product, the students fill out questionnaires of less than 15 questions. They also rate the game on a scale, which Fischer dubs the "playability scale." It goes from one to 10.

"In actuality we use one high school, but we hope to expand it to others," he comments. "The students will tell us about the graphics, the play action, the audio, the challenge, boredom factor, etc. It will basically tell me how to choose what to stock."

Doing such evaluations occurred to Fischer in late 1981, a short while after being in business, when products he had heavily stocked did *not* sell. He says he started to think up ways to improve his product selection process. Then, it occurred to him that since the demographics of the people who tended to use the software were young adults between the ages of 10 and 25 and most adults were less than comfortable with computer technology, much less with becoming its judge and jury, that "Youngsters in the 15-16 age range should be judges of such products."

And *not* only does he admit to having little patience when it comes to playing these games, but he doubts he can really tell what will be a best-seller. "Since today's kids buy it, then they are the best judges of what will sell. The logical situation then was have the games tested by the typical end buyer."

Based on that observation, Fischer started to bring games home to his "brood" of five, he explains. "But not only did I have five of my own hanging around, but they had friends who would also try out the products."

He felt little trepidation about asking his five and their peer groups their opinions on several software packages, he admits. He was trying to determine via the "brood" where certain products would fall on the "Fischer playability scale."

After awhile he started to base nearly all of his buying decisions on

the opinions of his children and their friends. Soon he observed that their predictions closely matched his sales figures. When he realized how precise his method had become, he decided to formalize the evaluation process. "After all I was spending much more money than anticipated on EPROMS for my brood," he says.

Furthermore, he had noticed that the software business had become a word-of-mouth business. His children would tell their friends who would tell their friends about products. A good product can move extremely quickly through a community just on the citizenry's opinion, he believes. "Once the word on a product is positive in the high school, I know it will enhance the product's sales."

Kids as salespeople

Todd Wheeler, barely 15 years old and with the consent of his father, works as a salesman at Software Concepts, Dallas, Texas. Darnell, part owner of the store explains: "We were in need of additional sales help. We wanted to hire someone who knew about programming and the technology. It seemed like the only people who fill these requirements are 15 and 16 year olds."

So when Wheeler and his father perused the store one afternoon and Wheeler's father heard Darnell was looking for sales help, he suggested his son.

"We interviewed him. He was the best candidate for the job," Darnell says. "I plan to always hire anyone who is qualified for a job."

Wheeler's responsibilities at the store are to keep updated about the new software developments, inform the others about these developments, answer customers' questions about software and make sure hardware and software demonstrations are working properly.

"Todd will sit down with customers and go through an entire demonstration with them. If a customer has a problem with a program, he will try to find out what the difficulty is and, we hope, solve it," Darnell explains. "He works on the comput-

ers much more than any of us."

Additionally, a majority of the store's regular customers are between the ages of 15 and 26. Most have commercial accounts and purchase on terms. These young adults typically buy computer products for the entire family. Darnell also extends terms to several youngsters in the neighborhood who frequent the store. "It is really the kids who are making this computer industry take off—not the adults."

Wheeler, Darnell observes, makes an effort to keep abreast of developments in the software industry. He often correctly predicts which products will sell well and which ones will not. Darnell says he

trusts Wheeler's predictions and will often make buying decisions on his advice.

"The software market changes fast. It seems like weekly. We rarely sell the same thing for longer than about a month," he explains. "Now educational software and adventure games are popular. Todd will take products home with him to test out. He also finds out from the kids at school which products they like and why. He comes back to the store with various suggestions and tries to keep us updated on market developments."

Darnell approves of using youngsters as salespeople. He believes that young adults are more accepting of computer technology and seem to have a natural affinity for it.

In the meantime, the number of youngsters frequenting this store continues to grow. Several 6 and 7 year olds have come in asking about products. And it appears to Darnell from the kinds of questions these children ask that they possibly know how to program on Commodore VIC 20s.

Wheeler's experience there, Darnell believes, is valuable not only to the store, but to Wheeler. "It's not the same thing as having a job in a hamburger joint after school. Anyone can push hamburgers around a grill. Todd is involved in current technology and working in a critical up and coming field."

Being a young programmer

"I don't get frustrated with adults. I just try to figure out how they come to certain conclusions. I want to make it easy for them to understand," Wheeler says. "I have had a few adult customers who look at me like I'm just a kid. I can tell they do not want me to help them because of my youngness. But if they only knew ...."

> "I think we (kids) make up a majority of the sales. If the stores hired youngsters and cared about the younger generation, they would get more sales."

If they only knew that Wheeler, a whiz at computer programming, had his first encounter with a computer at the age of 11. His father, who was working for IBM then, and Wheeler decided to invest in a computer. When they found the kind they wanted and purchased it, they signed up together for computer classes.

Nearly three years after those father-son computer classes, Wheeler boasts that his programming expertise has surpassed his father's. "On the Apple anyway," he adds. "At school, I find I am teaching the teachers things. There are tons of stuff she (the teacher) doesn't know."

Most of Wheeler's friends also work with computers. Often conversations among his peers at school center on computers and programming. He says they talk about the software market, arcades games and computer games.

"I think kids can accept computers easier than adults, because we are just learning about the world. Adults have grown up with certain

ways and computers were not a part of their lives. My kids will be better than I am at something else. Probably bigger computers that are more complicated," he explains.

But for now Wheeler finds he is content simply going to the arcades to challenge a machine and socialize with his friends. He complains that computer and video games are less than comparable to the games in the arcades. "The only game that comes close is *Miner 2049 er*," he adds.

Another complaint he has about the hardware and software retailing is that some of the adult retailers ignore youngsters when they come by their stores. He believes that ig-

small businesses although youngsters would frequent the store. Now Atari hardware and software is sold there and those youngsters have become regular customers.

Dealing with the younger generation is different than selling to adults, she notices. "Kids are more adept at learning than we are. Adults usually question every little thing. When you tell a youngster this is the way something is they accept it and are ready to go on to something new," she observes. "When you get into programming it is cut and dry. Also kids are open to taking a challenge. They tend to be more flexible."

Youngsters often control a family's purse strings. Several of them

highly technical questions. "They knew the technology and were there to help their parents make a buying decision," she adds. "Dealing with computer literate customers means you must be aware of technological changes and really know about the products you sell."

(They ended up selling computer systems to both of the customers, she reports).

As a grass roots effort

"I always liked kids and worked with them. When I was in my teens, I was a counselor at a boy's club located in a poor section of New York City," explains Tom Nestor, manager of the electronic game department for FAO Schwarz. When new products come in, he brings them to the youngsters who live in his neighborhood for scrutiny.

Since he still lives in the residential area of Queens N.Y., where he grew up, he knows most of the families and youngsters who live nearby. Additionally, he has a 16-year-old brother whose friends are more than happy to test out the newest computer or video game.

Now that Nestor's grass roots effort has spawned into this informal evaluation, he has little problems finding evaluators. Few kids today would turn down the opportunity to play with the latest, newest, before-it-gets-to-the-market pieces of software. Hence, he has become selective about who does the evaluation.

If a new product for 10 year olds arrives, he chooses from his rapidly growing group of 10 year olds to scrutinize the product.

"About most of the time they (his evaluators) are right," he says. "The only time they are not right is if the product is geared toward a special interest. If their interests are not similar and especially if the product is really involved, then it is hard to get an objective assessment."

On the other hand, Sterling Swift, a software publisher based in Austin, Texas, believes that youngsters are only part of the assessment picture. "I don't think they ought to be the only judges," he says.

> ## "I don't get frustrated with adults. I just try to figure out how they come to certain conclusions...."

noring young adults hurts the store. "I think we (kids) make up a majority of the sales. If the stores hired youngsters and cared about the younger generation, they would get more sales," he explains. "Because of certain store owners' rudeness to us, they don't do as good a business as they could."

Kids as programmers

Carol Gates also employs teenaged programmers at her Computer Solutions store in Santa Maria, Calif. Students from a local high school come to work there as part of the school curriculum. Although she did *not* have to pay them, she did anyway.

Generally, the high school students write programs that were used by the store's work force. "They basically write little off-the-wall programs that are used in-house," she says. "Like a mailing list, basic demonstration games, etc. Occasionally we would have them do a program as a free give-away to a customer who made a large purchase."

The store, until three months ago, sold Apple computers primarily to

making buying decisions and they should *not* be discounted as prospects. "If you listen to the younger people in your store, they openly give honest opinions on products. If two or three kids say they don't like a product, do *not* re-order it. It most likely will not sell."

On an informal basis, she says, she has a group of young adults who will test new products and discuss the products' saleability. Youngsters tend to ask more technical questions than adult customers, she says. Adults want to know about applications.

"It is embarrassing when a 7 year old comes along who can beat you at a computer game, and he has developed finer programming skills," she laughs.

Recently, two customers who work in real estate and are middle-aged had inquired about computer products. After a lengthy demonstration primarily about applications and software packages, they left, much to the salesperson's surprise, Gates reports. But they returned later with their teen-age children who nearly put the salesperson through the ringer with their
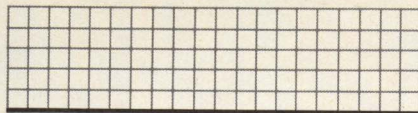
"Feedback is extremely important and it should come from the field," he adds. "But teachers, software experts, parents etc., everyone who will come in contact with the programs should be part of the field testing. Evaluation is the most important part of a product's development."

"You can always tell if a game will do well if after a couple of days of letting youngsters play with it, they still want to play with the game and talk about the play action," he says.

Nestor likes the informal evaluation approach he uses. He believes that if he formalized the approach, youngsters might feel pressure and *not* give honest assessments of products.

Just by watching

Here is a list of what some retailers look for while youngsters evaluate their products:

—Does it keep their interest?

—On subsequent visits, do they ask to see a product again?

—How do they react to the packaging?

—Do they bring their friends in to test out products as well?

—Do they have trouble understanding the directions that come with the product.

—Does the product attract the interest from across socio-economic and racial lines.

—Does it hold the interest of the age group the product advertises it is for.

And here is a short list of questions to ask prospective youngster customers.

—Ask if it is worth it for the price.

—What age group do they think it is appropriate for?

—Ask them if they would ask their parents to buy it for them.

—Find out how many hours a week they use a computer either in school or at home.

—What age do they recommend the product is for?

From Dallas to Santa Monica to Queens, it looks like the kids may be the deciding factor on the ultimate profitability of new software. ∎

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Software Goes To Preschool

A brave new world has arrived. Even computer illiterate parents have determined that their children will function in tomorrow's computer-dominated society.

Remember when an appropriate gift for a 4-year-old was a Sesame Street stuffed toy, Mickey Mouse Colorforms or a coloring book? Now such presents seem positively passé next to Atari's *Cookie Monster Munch* computer game, Walt Disney's game, *Paint* and Reston Publishing's computer games for preschoolers.

A brave new world has arrived. Even computer-illiterate parents have determined that their children will function in tomorrow's computer-dominated society. This year's babies constitute the class of 2001 with '83's parent community wanting them to be ready.

This computer generation is being trained with educational-recreational software and electronic gadgetry that puts even the most concerned parents at ease. Add to that the fact that video games have more or less prepared parents for what they now consider "the next step," and the computer in nursery schools becomes easy to take. Much of the available software for preschoolers even uses joysticks, rather than the more imposing keyboard. After all, Snoopy, Charlie Brown, Oscar the Grouch, Mickey Mouse and Goofy have been around for years. Even Strawberry Shortcake and the Smurfs have become familiar.

To Michael Katz, vice president of Coleco Industries, Hartford, Conn., "Education is always an area of interest. Anything that deals with improving your child is something everyone is ethically and morally committed to." Coleco plans to add educational titles to its line of computer software.

Actually, the joystick reduces the age at which children can begin using computers—some as young as 18 months may be able to manipulate such an object. By then, children are familiar with television and, if they've developed the necessary motor skills and eye/hand coordination, manipulating a joystick becomes more than a simple task.

To make sure the software can be used by those it's intended for several manufacturers do extensive laboratory and field testing in schools. In fact schools and day care centers are some software's heaviest users. Naturally testing would occur in such locations.

Some manufacturers will invite children to their facilities for "playtesting" of a new title; others do their testing at preschools, day care centers and the like. Whichever the case, some sort of affiliation with a learning center is undeniably paramount for anyone in the educational software field. Since testing gives designers and marketers a chance to see how the child likes a title and what the child would like done differently, the designers of *Paint,* for example, set up a two-way mirror to observe reactions to their products. Through the mirror company researchers listened to criticisms and requests, and then adapted the program accordingly.

Besides providing a batch of guinea pigs, schools and day care centers actually purchase the finished product. One major example is Commodore's work with KinderCare learning centers. The chain is currently in nearly 800 locations around the country, with a planned expansion to 1,500. It cares for children between the ages of 6 weeks and 12 years.

A pilot program with Commodore involves the supply of Commodore computers and software, through Chicago educational dealer Fisher Scientific. The computers are in about 40 KinderCare locations in the Houston and Minneapolis areas, designed for ages 3 through 12. Centers in the Montgomery, Alabama areas added the program in February, but only for children 5 and up.

The pilot program began in August 1982. According to KinderCare's coordinator of personnel training and education, Rusty Armstrong, "Computers have become an additional component of our learning center concept. All the children in the centers have access to the computers and are extremely eager. In fact, our feedback tells us reaction is one of, 'Let me at it!'"

Other software suppliers also work closely with volume users of their product. They want to meet specific needs—and that means financial needs as well as the educational kind. Schools today operate on tight budgets, so while they keep their charges up to date on the latest technology, they must do so as cheaply as possible. The educational market demands strong support services as well as "value for the dollar," since it has entire communities to satisfy with its decisions and actions.

Local computer specialty dealers are used sometimes, to provide

They notice DON'T ASK software.

And they buy it.

testing facilities for software, or to act as a purchasing agent for schools or other facilities. Of course, it pays for a retailer to keep up on what software (and hardware) is being used in local schools—it allows them to answer parents' questions and help them in home library update.

What's available

Slating its software as for ages 3 to 99, Optimum Research Inc. has developed a series of programs for nursery-school aged youngsters. Its series—*Stickybear Bop, Old Ironsides, Stickybear ABC* and *Stickybear Numbers*—comes with free posters, books and stickers in an attempt to get the entire family

weekends; "They know children and can educate store personnel," a company spokesman says.

Software Productions, Inc., Columbus, Ohio, has introduced a series of what it calls "Classic Family Software"—*Micro Mother Goose*— for Apple II computers. The games are geared for children 3 to 9 years old.

"We've spent the last year researching and developing appropriate, fun games for preschoolers," a company spokeswoman explains. So far the response to such programs has been favorable, she adds.

The company uses a team of professional educators, child-development researchers and actual

either before or after play-testing. Usually, though, even if a title has been tested by the outside designer, the marketing company will do further testing. For one thing, it's a way of finding out how much interest in the program there would be from educators.

One firm publishing its own software and that designed by others is Dynacomp, Rochester, N.Y. Programs submitted from outside must come with documentation, and are then reviewed by Dynacomp's technical department. Current titles include *Hodgepodge* and *Children's Carousel* for computers from Apple and Radio Shack.

Reston Publishing acquired *Paint* from a mail-order company that had been marketing it previously, and has also acquired *CyberLogo Turtle: A First Step In Computer Literacy,* for preschool, kindergarten and up. According to a spokesman, "Both parents and schools buy these titles, and both are highly selective. Parents want program alternatives to the shoot-'em-up type games, and there hasn't been a lot of educational software out there."

To reach teachers, Reston attends their conventions and advertises in such publications as *Electronic Learning, The Computer Teacher* and *Classroom Computer News.* Other companies also find these events and media useful— the conventions because they allow teachers an opportunity to try out the software.

> ## "We've had them returned with teeth marks from where the kid tried to eat them. The users are predominantly between 2 and 3 years—with some even younger."

involved with a child's learning. These programs, distributed by Xerox Education Publications/Weekly Reader, Middletown, Conn., are currently available for Apple computers.

Texas Instruments markets its 99/4A home computer as a product for the entire family, and more than half the software designed for it is educational. The company is working closely with stores, but not losing sight of educators. "Our whole marketing scheme is to put these products where people are, so we're focusing on mass merchandisers," a TI spokesman says. "We advertise heavily to promote the home computer. We are now beginning to advertise software both on television and in print advertising."

Additionally, there are extensive point-of-purchase materials and 2,000 in-store demonstrators employed by TI who tour the country going to stores checking P.O.P.s and explaining about hardware and software. Almost all are teachers who work after school and on

field testing to make sure their products are appropriate for young children. The company also gears its programs toward the learning disabled.

Spinnaker Software currently has two titles available for preschoolers, with nine more planned for introduction by the end of the year. *KinderComp* and *FaceMaker* are both designed for computers from Apple, Atari, Commodore and IBM and use just two keys to play.

How young are the children using these programs? "We've had them returned with teeth marks from where the kid tried to eat them," a spokesman notes, adding, the users are "predominantly between 2 and 3 years—with some younger."

The company's software is designed by outside designers, like most of the other firms (some have in-house designers, but all use outside sources to some extent). In much the same way as authors approach book publishers, educational software designers submit programs to software publishers,

Market Research Important

Testing is only the last leg in a long developmental process. Walt Disney's computer software line was more than 2 years in the making. "We had to research the market," explains vice president Fred Simon. "The two most important reasons for personal computers are to educate and entertain." Disney's new software, therefore, was designed to cover both those bases. The more than 50 titles are all educational, and all use Disney characters, yet they also involve adventure, action and entertainment. In other words, they attempt

to make learning fun.

"The games reflect educational, social and entertainment goals," Paul Furstenberg of Children's Television Workshop says. The workshop worked closely with Apple and Atari, in designing such software. *Oscar's Trash Race, Cookie Monster Munch, Big Bird's Egg Catch* and *Grover's Music Maker,* are Atari's newest titles. The games will first be available for the Atari VCS 2600 and then for the 5200. A special controller using keypad overlays and large, easy-to-read graphics accompanies the games.

"We did research into what the kids could handle, what characters they recognized and so on," Furstenberg says.

Disney also made sure its software would be skill- and age-appropriate and that the characters would be recognizable. According to Barry Fishman, who heads the company's in-house design staff, consultants and teachers provided input during the development.

"It's important to remember these are games—entertainment—also," Fishman says. "We provide immediate reinforcement for correct answers, to keep frustration as low as possible."

Atari has no plans to market its children's computer software through schools or day care centers, but will instead use traditional print and television advertising.

Preschool software plays only a small part in Apple's software mix; the company has not done research into marketing for that age group, and has few titles available. Those they do have, however, include *Ernie's Quiz,* part of the *Discovery Games* from Children's Television Workshop; *Instant Zoo;* and *Spotlight.* Other titles are available through the Learning Company, which offers *Moptown, Bumble Games* and *Juggle's Rainbow* and Stepping Stone Software.

Apple does offer some non-sales marketing techniques, however, including a speakers program that sends speakers to various schools or organizations to talk about computers. This activity is by request of the school or group.

A spokesman for Toys 'R' Us concludes that software geared toward the preschoolers is less than adequate. He says that not only are there not enough programs, but the programs which exist can be easily and quickly written by parents in less than a day—if parents want to make an effort to learn how to write programs. "Such programs are simple and short to make," he says. "Why spend $30 for something you can do yourself for less than $5." ∎

History Of A Game: *Snooper Troops*
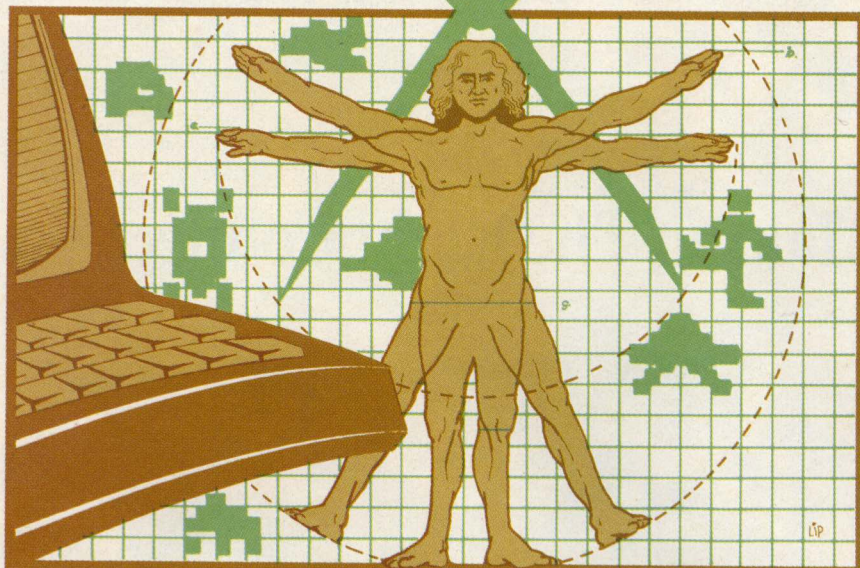
Ron Lipking

Just prior to New Year's Day 1983 an educational game for the first time ranked within the top 10 best sellers on several industry computer game charts. The game, *Snooper Troops*, today continues to show up as one of the top 20 best-sellers.

With its popularity consistently not faltering, it was decided that an investigation was needed on how and why educationally-oriented *Snooper Troops* has attained such wide acceptance.

When the editor of SM approached me with this assignment and a sample of the game, I found myself instantly intrigued. "Learning fun!" I thought to myself.

I pondered the only known facts in the case—it was a hot seller and sold for use in the home. Then I started questioning the persons involved with bringing the game to market.

Bill Bowman, chairman of Spinnaker Software Corp., the publisher of the game, was more than eager to discuss the company's successful software. Some 45,000 copies of *Snooper Troops* have been shipped, he told me. This is four times the number the company had originally estimated, he added.

Interestingly, Bowman had the company's sales figures at his finger tips, as he was preparing for a Spinnaker board meeting. Actually all of the company's four games have sold within 0.5 percent of each other, he discovered.

But *Snooper Troops* is the company's flagship simulation game. It was the company's first and now its oldest game, having come to market at the end of last August.

Long before Bowman and colleagues discovered its popularity, a group of fifth graders in Cambridge, Mass. had already voiced kudos and showed great affection for the detective game. In fact, the game had developed such a following that a very, very, off, off broadway musical using the Snooper-Troops theme was conceived and eventually performed at a Cambridge elementary school.

Snooper Troops existed on a 1979 state-of-the-art Radio Shack TRS 80 computer in the center of Tom Snyder's then-girlfriend's, now-wife's, fifth grade classroom. As he tells it, the youngsters in the class were into reading mysteries. He decided to write a program where each student could go up to the computer and type in his/her detective number and retrieve facts on the case. The object was to solve a mystery.

In 1979, Snyder was teaching science and music at the same school as his wife in Cambridge. He had studied education during college, but on the side he tinkered with computers. He admits, "I guess I was kind of a nerd. Instead of doing what I was supposed to do as a teen-ager, I designed a digital computer and sent it to IBM. IBM sent me back some parts and told me to build another. I guess computers became the antidote to what I was supposed to be doing."

A computer programmer by night and a teacher during day, I thought, while interviewing Snyder, who was in his office, a third-floor apartment in a three-story old-time Cambridge, Mass. walkup. This apartment-converted-to-an-office is the headquarters for Tom Snyder Productions, Inc., of which he is the president.

Inside the apartment-turned-office, he told of the original TRS-80 versions of *Snooper Troops*. The first version was exclusively text and the second had some stick figures. Everything was in black and white.

By the early 1980s, publishing giant McGraw Hill had expressed some interest in the interactive mystery software package. It is believed that such a program in its original 1979 form would sell to school systems which based a curriculum around mysteries. It occurred to Snyder, and most likely to McGraw Hill as well, that while the program experienced much suc-

cess in a Cambridge elementary school, generally schools are not looking for an interactive mystery curriculum.

By the spring of 1981, however, the game had become the rage of Snyder's fifth grade classes. A play about junior detectives based on *Snooper Troops* was about to debut.

In light of this Snyder decided to redesign the program so it could be used by one person or a small group. Something youngsters could use during a rainy day recess period; possibly, he concluded after pondering the school market, a game children would want to use at home. After all, *Snooper Troops* causes players to use writing, reading, social and deductive reasoning skills as well as an array of other cognitive processes.

Additionally, he hired some marketing experts to help him explore the home market. Snyder's experts approached venture capitalist Jacqueline Morby of TA Associates in Boston after an article about her involvement in the computer industry appeared in the New York *Times*. The encounter with Snyder's people sparked more than Morby's curiosity when she remembered her son continually mentioned an interactive detective game he had played during his fifth grade experience.

She recalls: "That year my son was doing neat things with computers. He constantly nagged me to get a computer so he could use it to do what he had been doing at school.

"We finally bought an Apple in November 1981. I told him to go ask his teacher where he could purchase the computer game he was using in class. When we found we could not get it, I really didn't do anything about it, although I am a venture capitalist."

But it was near the end of that same November that Snyder's people persuaded Morby to come by the office for a demonstration.

She arrived at Snyder's third-floor office prepared. She brought her son, then 12, to help her scrutinize the goods. "My impression of

Tom was and still is that he is a good educator and one of the best teachers. He had a good program and I was impressed."

The begetting

Morby told me—after rigorous questioning to jolt her memory—that with Snyder's accomplishment tucked away in an easily accessible corner of her mind, she arrived at her typically Bostonian-style office, an old-time high-rise containing Beantown's famed brass railings, marble columns and wood panelling, one January 1982 mid morning to discover that a colleague, Jeff Chambers, could not make one of his appointments. Naturally, she would and could cover

questions buzzed around their respective households.

Morby also set her sights on putting Seuss and Bowman on the right track. She introduced them to contact after contact in the computer industry. One contact was Tom Snyder.

"The day we went to Tom's I remember thinking how his third-floor, walkup office reminded me of a garage shop," Bowman recalls. "He demonstrated the game on an old Radio Shack computer. The graphics were low resolution, black and white with stick figures. It was really plain, but impressive."

What Bowman liked about the game, he explains, was that it contained a whole series of learning

> By spring 1981, however, the game had become the rage of Snyder's fifth grade classes. A play about junior detectives based on *Snooper Troops* was about to debut.

for him. As it turned out the appointment was with one Bill Bowman, a Harvard business school graduate grappling with the concept of becoming a business or educational software publisher. He was an entrepreneur looking for financing.

And financing he would get. According to Morby, she returned to her office that January afternoon, after having a quite informative lunch with Bowman, to tell Chambers, "We found our software start up."

"I knew they (Bowman and David Seuss, president of Spinnaker) were the type of people we would want to back. They were sophisticated marketers, true professionals and highly educated."

Once Bowman and long-time colleague Seuss realized a deal neared, they literally jumped from first gear into overdrive. First Bowman and Seuss commandeered family members as well as friends to aid them in their search for market information. Should they become a business or educational software publisher, or both? Such

exercises and it was cute. Although Bowman and Seuss continued to debate the business-education software issue, they still met with Snyder who, at the same time, had decided to make the game Apple-computer compatible.

As Bowman and Seuss explored the educational market further, it occurred to them that virtually no satisfactory educational software for youngsters existed. By the end of January, they realized the market as well as Snyer's programming were moving fast. "It became clear we had to make a move," Bowman remembers.

"The educational software geared toward the home was bad, then. Sales on such products were few. Our company and Tom's looked at this and decided either there are no sales because the product is bad and the market size is so small it can't support such products, or there is a market potential there that has not been realized because the existing products are so bad," Bowman observes.

In February, Bowman and col-

leagues brainstormed a marketing strategy for educational software products for home use. "We decided that educational software for the Atari, Apple and IBM is what we should be making," Bowman says. "We sat down figured out what is the soonest date ideally we could bring such a product to the marketplace."

If nothing went wrong, no one got sick and they used overnight air delivery services, it was believed that in less than seven months such a product could be made available to consumers. Hence, an August 27, 1982 deadline was set. Seuss and Bowman had committed themselves to taking the plunge.

> "They (the advertising agency) pitched nearly 20 ideas before we decided on Spinnaker. We picked Spinnaker because it connotes motion, is colorful and brings out the idea of fun and recreation. If you say learning to youngsters, I think they get turned off."

The end results

By April Spinnaker Software Corp. became official. Bowman and colleagues had a name. Now they needed a company image.

The first order of business—to think up a name for the corporation. And after frequent meetings with their advertising agency the name Spinnaker was conceived.

"They (the advertising agency) pitched nearly 20 ideas before we decided on Spinnaker. We picked Spinnaker because it connotes motion, is colorful and brings out the idea of fun and recreation. If you say learning to youngsters, I think they get turned off," Bowman explains.

Interestingly, he adds, "When we searched for an agency, we wanted to find one that typically deals with consumer-oriented accounts. We realized that our product was not high tech. It was a game, a toy, a consumer item."

Again they entered into around-the-clock brainstorming sessions with their advertising agency which, after about three weeks, brought a company slogan, "We make learning fun," and a company image, "A good, solid, fun, wholesome, game-oriented, educational-software company."

In May, nearly three months shy of deadline, the company's policy on packaging had *not* yet been decided. Bowman had already been told by the packaging company it would take more than eight weeks to get the packages made and back to the company.

The kind of packaging Bowman and colleagues wanted was different than any kind of box the company had ever made before. Spinnaker then anticipated shipping about 3,000 copies.

"We wanted packaging that was unique. All the packaging that the industry had was mimeographed instructions inside ziplock baggies or plain brown paper wrappings," Bowman says. "We decided to go with a radically different new box—a plastic box instead of cardboard and one that could snap shut. Something mom could wipe peanut butter off of."

With the packaging conceived, a company slogan and name, by June only two more potentially time-consuming obstacles stood in Spinnaker's way. Bowman and colleagues needed to finalize a deal with Snyder and to strategize where to advertise.

Since Spinnaker already had hired an advertising agency, the latter obstacle seemed easier to tackle. But as it turned out, Snyder,

who nearly signed a deal with McGraw Hill, entered the Spinnaker camp easily, and it was its advertising agency that could not decide which computer publications to recommend to receive Spinnaker ads.

As advertising deadlines neared, Bowman and Seuss hopped into warp speed. They scooped up all the computer-related magazines they could find to count the frequency of and the size of their competitors' advertisements in each issue. Once all this was entered into a *PFS* program, they could determine which magazines hit their target markets. In the end four trade and four consumer publications received Spinnaker ads.

By August, Bowman remembers, "Anxiety centered around checking separations and the typesetting of documentation and instructional manuals. Everything had to go perfectly. One error and we could be set back for weeks."

And when deadline day, August 27, finally arrived, an ironic turn of events transpired. UPS showed up a half hour early. Although Spinnaker's work force had received the packaging on time, they were still assembling boxes when the UPS man arrived. As it turned out they did *not* ship products until the following Monday.

In the meantime

While Bowman and colleagues rushed around to bring a quality product to market in less than eight months, Snyder, although he did not finalize a contract with Spinnaker until June, was well aware of Bowman's plans. During the first two quarters of 1982, he had met with Seuss and Bowman frequently to discuss the philosophy of a home-eduational market as well as royalties and terms for a contract.

Snyder too had to work at warp speed to get *Snooper Troops* ready for publication.

He hired a writer to develop the detective notebooks which players use to take notes on the case and which contain case histories about each suspect. An artist was hired to draw the houses and telephone

booths as well.

Additionally, Snyder brought in his students to find bugs, test his programs and provide criticism. It usually takes him nine months to complete a program, he says.

"I bring youngsters here and let them play with the game. I decide on revisions often from just observing and listening to their comments. I have an enormous supply of youngsters since I work nearby the elementary where I teach."

And as he comes to the completion of *Snooper Troops #3*, his group of testers show up at his workshop to scrutinize the new ware. Snyder watches them to determine the kind of reaction his product may receive in American homes or at the schools. He also records reactions to his product so that later he can make the appropriate changes. He has made some changes just on the strength of what his testers have said. Translations of #3 for the Atari and IBM have already been started.

One aspect to his educational games that he likes is that he believes *Snooper Troops* gives youngsters the incentive to do reading and writing. "The computer can be used to teach reading. To get through the game youngsters must use some high level cognitive skills as well as do much reading. Often I have seen kids sit down to play the game without a pad or pencil. Within a half hour of playing the game, they start looking around for something to write on or write with to keep track of clues and take notes on suspects," Snyder notes. "Youngsters realize the importance of these skills through my games."

Snyder remembers how surprised he was when Bowman and Seuss decided on the strength of an old Radio Shack, low-resolution, black-and-white version of the game. They had a lot of faith and were willing to take a risk, he says.

Spinnaker officials believed strongly that an educational-home market was about to emerge and all that was needed was a quality product to tap this market. ∎

—Faye Zuckerman

Crashing The Skull And Crossbones

George Abe

By Martin Polon

Most analysts concede that 1983 will be a year of positioning in the personal computer business. The number of homes equipped will rise dramatically, while profitability for both dealers and makers will slip as mass merchandising pushes out hardware. That will be followed by what most analysts agree will be a software bonanza. Unfortunately, where there is gold there will be those who will try and steal the gold. The impact of software piracy is hard to gauge. Seymour Rubinstein of MicroPro International has been quoted as stating that his $26 million sales figure should be double that, if it were not for pirates. Other industry toppers refuse to be identified, but concede that pirates are costing most vendors some sales. If 1983 hardware sales amount to five million units (and that could be conservative) at an average price of $200, that would produce about $1 billion in sales. If software and peripherals sell through at a $3.50 to $5.00 ratio for every $1 of hardware sold, then the pool for 1983 sales alone could hit $5 billion worth of software and peripherals. Peripherals do not lend themselves to inexpensive duplication (and are subject to patent and trademark protection), but computer software is virtually defenseless from the technology that created it.

Movie and record parallels

The piracy and other issues have caused Jack Valenti, movie industry spokesman, to state, "The new technologies are going to be marvelous—for customers and for everybody else. But first, we've got to define the rights of (software) owners. The dishonest dealer and program-swapping user groups, two new kinds of computer software pirates, are not evident in audio or video software. The existence of copyright laws (some of which do cover computer software), and high level activity by the FBI, MPAA (Motion Picture Association of America) and RIAA (Record Industry Association of America) have kept a lid on that phenomenon in audio and video. The basement software bootlegger, on the other hand, who makes hundreds (if not thousands) of copies and sells at discount by mail is similar to those who copy records, cassettes and videotapes (and take up to 80 percent market share according to some estimates). The computer software industry may well pool resources to police sales of illegitimate copies re: movies and records."

Firmware

A program can be stored on paper, in a ROM (Read Only Memory) chip, on audio tape, on a floppy disk, on punched paper tape, etc. Of all of these, the ROM chip, when housed in a plastic case with a connector, is the least prone to piracy. First, the use of specific physical dimensions and connections allows mechanical protection via patent. Secondly, such software can carry a trademark. Third and probably most important, it requires a semiconductor manufacturing capability that is beyond the reach of pirates. The term firmware means that the program cannot be erased. It is placed in a memory chip by photo mashing or ultraviolet light or by electrical impulse. Once used, as a cartridge, it is both convenient and foolproof. That is why all videogames and several computers that game use the cartridge and port system to load software. The very task of disassembling a cartridge and bit slicing the ROM chips with an electron microscope and laser tool costs more than most pirates would invest for a copying rig of four to six floppy disk drives with a controller. Unfortunately, sales volume of most programs does not justify the cost of putting a program onto a chip.

Audio tape software

One of the least expensive software tools is the audio cassette recorder. Unfortunately, it is also the

most vulnerable to software theft. With the bulk of all personal computer sales concentrated below $300, it is naive to expect users to spend more on a large save memory/input-output device than they did on the computer. The floppy disk still has a price tag greater than most computers sold today. The inexpensive audio cassette recorder is a mass-market tool for low-end software. A computer adapts its digital format to produce audio tones in a continuous series of bursts. This "music for computers" is no different than any other kind of audio and can be copied from one cassette recorder to another. Some of the Japanese electronics makers even package 'copy cat' machines with two tape decks. These units will knock off copies of Billy Joel or Atari Basic with ease. In this case, the computer industry shares directly the problem the record industry is trying to shove into the purview of Congress. There may be no technical solution, but software vendors are entitled to share any blank tape royalty solution.

Floppy disk software

The floppy disk is at once the best and the worst software medium to protect. It is played via a sophisticated drive that allows encryption or encoding of software. But it is a mass use device, which allows unlimited copying by any number of drives interconnected. It is designed to load rapidly, allowing two drives and a computer to make a surprisingly large number of copies in a short time. Most illicit floppy copies are done in that way. The $19,000 professional copiers usually perform for legitimate software houses that need thousands of copies per day. Copy protection codes have been the software industry's initial response to piracy. The codes are designed to prevent a user from making more than "X" number of copies, usually two. But a combination of "super pirate" programs which themselves are designed to break the copy codes, and users who want backup copies

to protect against wear have caused most software houses to give up on the codes. Apple, MicroPro, Tandy and others do not like to use the codes at this time. Even giant IBM has not opted for special protection of its PC software.

Some copying goes on "legitimately." School districts, made cash-poor by Reaganomics, have been known to turn one purchase into copies for each classroom. The idea of blank media royalties of floppy disks has been suggested, but the use figures make such a levy unfair. It is estimated by some observers that greater than 50 percent of all blank disks are used to store data. A royalty would discrimi-
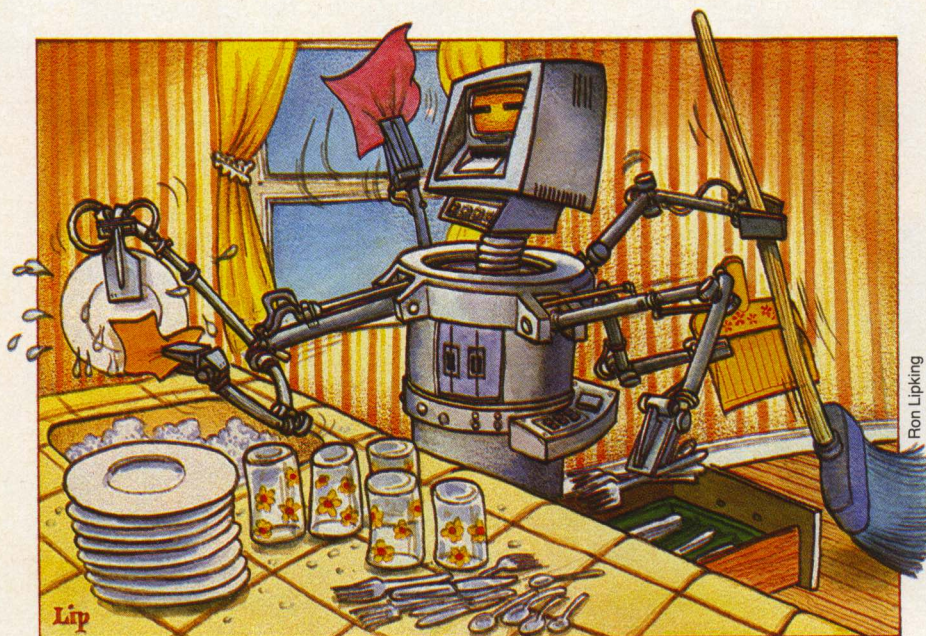
nate against those users. The continued existence of the problem, however, may force that solution on the industry and consumer. It is argued that 25¢ per disk will harm no one. Peculiarly, the new range of micro drives and mini-tape drives has proven less vulnerable to theft of software. The very lack of standardization that restricts such units to one manufacturer's product decreases the value of software piracy. The lack of electronic sophistication of such drives also discourages the casual user. But as each computer maker increases market share, the thieves will gain interest and find a way. The unfortunate beauty of conflicting technologies is that one side or the other takes dominance only to lose the lead. The *New York Times* quotes Edward H. Currie, President of Lifeboat Associates; "The lesson is that as fast as you can think up a new

code, someone else can break it."

Curbing the pirates

The fact that no one is really sure how much business is drained away by pirates prevents some companies from responding effectively. To many, the visible competition is more of a threat than the invisible pirates. Because each group of pirates is different, a shotgun approach fails. User groups are very difficult to stop because they are an amorphous conglomeration of sophisticated computer owners with large scale hardware systems. If one individual is neutralized by legal action, another takes his or her place. Some argue the

groups exist solely to trade software. The basement pirate, whether quasi-legal or invisible, can be stopped in the civil and/or criminal courts. The basic decisions on software protection have been made and there have been large awards, most noticably by the courts to MicroPro and Digital Research for unauthorized copying. Despite the sophistication of most pirates, industry insiders insist the dealer-pirate is still the most dangerous, especially to the small software house that can least afford it. If 1983 is the year in which totals for personal computers sold will reach 10 million units (cumulative), then 1984 and beyond will become mass markets for software as well.

Right now, much of the magnetic software is still sold by small operators; many of them do duplicate programs and packaging for greater in-store profits. ▪

> **One of the least expensive software tools is the audio cassette recorder. Unfortunately, it is also the most vulnerable to software theft. With the bulk of all personal computer sales concentration below $300, it is naive to expect users to spend more on a large save memory/input-output device than they did on the computer.**

Robots and Dollars

Ron Lipking

By Faye Zuckerman

A robot's weekday begins at 6 a.m. He starts the coffee brewing, brings the newspaper in and via modem records the top news stories. At 7 a.m. he awakes his companion who asks, "What's in the news today?" After being recited to on world events, the companion scurries around preparing for work. The robot too hastens about doing the morning's chores. Finally, ready for work, the companion touches the top of the robot's head and says, "I'm leaving now, please answer the telephone and watch the house."

As the door closes, the robot is left behind to do "home security" and an assortment of chores. The first being—clean the kitchen.

Sounds like the year 2000.

A reality possibly as soon as this fall.

Robots are rapidly becoming the next, new electronic wizardry to enter the home-small office environment. They might become the next generation of computers performing all the applications found on today's computers plus several more tasks.

Such companies as Androbot, Inc., Sunnyvale, Calif.; RB Robot, Corp., Golden, Colo.; World of Robots, Jackson, Mich.; and The Heath Company, Benton Harbor, Mich. claim to be either marketing or about to begin selling home robots via outlets wherever computers are sold. Tasman Turtle, Hobart, Australia, (distributed by Harvard Associates, Inc., Somerville, Mass.) is a robot used to introduce school-age youngsters to robotics. Some 60 U.S. school districts own such turtles. The Heath Company also dubs its robots as an educational tool, but several owners use the robot for home purposes.

As robots take their place next to computers on retail shelves, so will the software which virtually gives the robot purpose. During the next few years consumers might find themselves purchasing a home robot and then returning to that same store to pick up the robot's newest software package. Packages could range from home security to greeting guests at the door to cooking meals to doing laundry to baby sitting to teaching or helping with homework to nearly anything. With user friendly programs made available and robot owners learning how to program their own robots in several languages, this new electronic gadget's scope is limitless.

Imagine this high-tech scenario: While the parents are away, their children program the robot to do some mischief. Who gets punished? The robot or the children?

"It's everybody's dream to have a labor-saving device around," explains Frank Manis, a professor of psychology at the University of Southern California, Los Angeles. "But the effect on society is hard to say. There has *not* been any research done on this issue. The good effect, I think, is that robots give people more leisure time. What they do with that time is up to them."

He continues: "But you have to recognize that some persons will misuse things. You have to look at the psychology of people. It is *not* the technology per se that causes a problem, it is people's attitudes toward the technology which brings on problems. But robots could give people the opportunity to develop themselves by tapping into national networks and retrieving information instantaneously."

As a psychologist Manis sees

few difficulties and dehumanizing factors with robotizing at home. He says that a natural human tendency is to want to affiliate with other humans. Hence, most "normal" people would make a smooth transition to robotics in the home.

Children that have emotional-social disorders might show an overly intense obsession with such machines, and *not* want to associate with their human peers. "Then, you would alter the environment to help solve these anti-social problems," Manis says. "It is possible that robots could exacerbate a problem. I worry more about television than I do about robots or computers. The new technology is interactive—hands-on experience. Television is

useful, easy to use and safe.

"We have made TOPO and B.O.B. (the name of the company's robots) adorable as well as durable. When moms see these robots, we want them to say and we often hear them say, "Gee, that is neat,'" Frisina explains. Some moms do *not* even want a maid invading their domain much less an obnoxious, walking-talking thing that looks like a trash compactor.

This company's flagship robot, B.O.B. (for Brains On Board) stands nearly 3 feet tall. He is described as the forerunner to what robots will be and what people want them to be in the future. B.O.B. is a talking computer on wheels.

information to clients."

TOPO, unlike B.O.B., needs to be connected to a computer to work. He is virtually a computer peripheral that takes commands from computer software via a radio frequency link. He lacks brains on board in other words. TOPO software comes on floppies that insert into a computer's disk drive.

The basic package for TOPO consists of joystick controls, some elementary routines which can be programmed in Basic and TOPO LOGO, an easy-to-understand language for children and those adults "concerned about being left behind as the computer revolution rages," Frisina adds.

Since TOPO is so new to the marketplace, the typical buyer can *not* be determined. But, Frisina suspects that educational institutions planning to use TOPO as a learning tool and males between the ages of 25 and 49 who make incomes of more than $35,000 a year will become the robot's first companions. "People who purchased computers first will most likely become the first buyers of TOPO."

Interestingly, the first over-the-counter sale of TOPO was to the Cupertino, Calif. School District.

> ## Some moms do *not* even want a maid invading their domain much less an obnoxious, walking-talking thing that looks like a trash compactor.

just passively sitting and watching."

Generally, robot manufacturers concur with Manis. They believe, like the computer industry, robots will come to play a vital role in our lives. But the manufacturers find they must deal with the public's image of robots first. An image fostered and spurred on by a film industry which characterizes robots as two extremes; robot monsters or robot marvels. The monsters being similar to a crazed HAL aboard the spacecraft in *2001* and the marvels—the adorable, lovable and most personable R2D2 and C3PO from *Star Wars* and *The Empire Strikes Back*.

Androbot

Aware of the public's high expectations or subtle fear of robots, Androbot's staff realizes firstly that for such a product to be accepted in the household, where an aversion to some mechanical marvels already exists, a robot that looks both adorable and futuristic needed to be designed. Secondly, adds Thomas A. Frisina, president, chief executive officer for Androbot, such a product must be durable,

By June, when the company plans to introduce B.O.B., he will have such capabilities as speech recognition and synthesis, home security, sensors to detect objects, trace pathways through rooms and perform some simple tasks, Frisina says. "He will even go get you a beer or a soft drink from the refrigerator."

The software for B.O.B. is expected to be self-contained, autonomous units which fit directly onto the robot. Eventually customers will go to the store to buy "Andro-software," Frisina explains, "for example, Andro-sentry, a home security package."

By the fall Frisina hopes to have B.O.B. sold through computer retail outlets with a suggested retail price of about $1,295.

As for the company's other robot, TOPO, he is currently being sold via some 25 computer stores. Frisina plans to have "TOPO sold through any retail environment that has an investment in the computer business. An investment means the right demonstration facilities and knowledgeable salespeople who can communicate the necessary

RB5X Intelligent Robot

Since January this Golden, Colo.-based company has been selling its robot, RB5X via computer outlets. By the year's close Joe Bosworth, company president, plans to have sold some 5,000.

Generally, he finds that retailers treat his product like another product sold through their stores. They want to know about service and support, quality and saleability. "I think they look at the same things they would look at for any other product," he says. "They ask the basic questions they would ask about any other appliance they sell."

But RB5X brings many more capabilities than any simple household appliance. He is part of a new genre of household products. Eventually RB might be the butler, cook, maid, teacher, baby sitter and even possibly chauffeur and

gardener all rolled up in one simple, easy-to-use package.

Standing some 13 inches by 24 inches and weighing less than 30 pounds, he looks like an R2D2 knock off. On board he has some 8K bytes with an optional 16K add-on unit. To program RB one connects him to a computer, loads the already written program, removes the cable and off he goes. When he feels his batteries getting low, he follows an already-made pathway to where he automatically hooks onto a recharger. And to keep RB from smashing into furniture, walls, people, etc. he comes equipped with sensors and eight bumper switches. When RB touches an object in his path, he will move away—back, forward, left or right—and then store the information about the object's whereabouts in his memory.

Bosworth describes today's RB owners as engineers, high technology enthusiasts and educators. "More technically minded people tend to be purchasing the robot," he says.

Interestingly, RB seems to be selling better in Alaska than in any other region of the United States. Bosworth believes that the life style in Alaska lends itself to robotics. "People tend to have multi jobs to do. They tend to household chores, home economics and several even work the land as well as hold down high tech industrial jobs. They already have an electronic orientation." RB also is sold in the Netherlands, Japan and Columbia.

For RB to win his way into the hearts and homes of the everyday consumer, he will need to be extremely user friendly. Consumers want products that switch on and do the task. Most customers are less than interested in programming or fidgeting with chips and wires.

Aware of how unforgivable the American public can be, Bosworth says he realizes that his robot will only be a hot seller if consumers know and understand exactly what they are getting for their money. It seems that robots now are a self-learning product for enthusiasts,

hobbyists and educators. By September, however, Bosworth hopes to sell a consumer robot for $895 which has voice recognition and response, and home applications.

In the end, he hypothesizes, the social and economic impact of robots should be more than a positive one. Industry has used robots for awhile now and it *not* only has proved economically effective, but robots perform jobs once deemed extremely dangerous for human workers.

GENUS

World of Robots, a subsidiary of Robotics International, Corp., currently is establishing a nationwide network of dealers for its home robot GENUS. A company spokes-

> "We see the situation with the home robot as where Apple was 10 years ago. Ten years ago people were saying the Apple had no practical use."

man expects these robots to enter the market by June. The price borders on $5,000 for the basic model and nearly $10,000 for the deluxe version, he adds.

According to Victor Pytko, director of communications for the Jackson, Mich. company, "The robots are still in the research and development stages. We show GENUS at trade shows and exhibitions where he is controlled by a remote. Hence that version is *not* a robot."

When GENUS enters the marketplace, he most likely will be outfitted with a keyboard and CRT, interchangeable software, the ability to transmit programs from a computer and some 48k on board.

He stands 4.5 feet tall, is 22 inches wide and deep and weighs about 120 pounds. The company reports that his body is made of high-impact plastic and fiberglass which resists fingerprints and dirt.

Today's GENUS robots can greet guests at the door, offer a hand for a shake, play computer games on their built-in CRT, do home security and trek their way through your house without knocking plants, hit-

ting furniture, knocking into walls, etc. The GENUS coming this fall will be able to do several more tasks, Pytko reports. State-of-the-art speech synthesis and the ability to do household and menial tasks, for example, he adds.

"We see the situation with the home robot as where Apple was 10 years ago. Ten years ago people were saying the Apple had no practical use. Few could envision what uses a home computer would have," he describes. "Ten years later we are selling millions of them. Where will robots be in 10 years? Anyone's guess."

He adds: "The robots will be software driven. Companies will sell software in retail outlets just like with the Apple. We do *not* have software plans right now. All our energies are in getting the robot up and running."

The typical person expected to buy GENUS, he says, tends to be interested in the high technology field—enthusiasts—and educators.

HERO I

To understand the Heath Company's robot's purpose, company officials will tell you what Hero (for Heath Educational Robot) is *not.* "He is *not* intended to be an industrial robot, *not* a commercial device, *not* a playmate and *not* a toy. He is to be a trainer. He comes with 1,200-page course on robotics," says William E. Johnson, the company's president. "Most colleges and universities have some books on robotics, but how can you demonstrate what robots really do unless you go out and spend some $50,000 on an industrial robot."

Ergo—Hero I, a $1,495 package that embodies nearly all the capabilities and attributes found on industrial robots. Hero is a 20-inch-tall, 34-pound robot learning cen-

ter. Companies planning to automate with robots and industrial engineering departments are purchasing Hero and the course to better understand robotics.

Johnson believes, however, that a small group of Hero owners are using the robot for home applications. These persons, he explains, have substantial incomes and an incredible commitment to electronics and new technologies. "They are the ones who had the first computer on the block, the first dish satellite, probably even the first Porsche."

Such persons are using the robot to greet guests at the door or possibly to deliver mail in an office, for example. "Again, the product was

Hero, Johnson exclaims, "I don't know what they will come up."

The company's users group of highly specialized technology experts and enthusiasts, will develop a number of programs, most having practical applications, but, a number of them, he admits, will be creative jokes.

Johnson foresees that robots will eventually be sold through department stores possibly within two years. He reports that the Heath Company is looking to expand its distribution base and would *not* preclude the possibility of selling its wares through other dealers.

The response to Hero has been better than good, company officials report. Hero sales have soared be-

er of Flexible Systems, notes, "makes a robot in every home and classroom finally possibility."

For now, however, turtles have primarily been sold to schools to teach children how to program. It interfaces to Apple computers, comes equipped with a pen for children to program drawing, and has two blinking eyes. "Youngsters receive instant feedback on their programs. They can see right away if they are making a mistake by watching how the turtle moves," Glass says.

In the meantime, Glass and colleagues are setting up a network of dealerships for these products. They hope that turtles will become a household product. Software development will be ongoing and the company hopes to come out with language arts applications soon. The robot sells for less than $1,000.

Interestingly, one Alaska school system has ordered 20 turtles. And the turtles have been available in Australia since 1980 where youngsters use LOGO, Basic and other languages to control the animal.

> ## "It reverses the role of the computer as the thing that is all knowing to the person being in control and telling the robot what to do."

not designed as a commercial product," Johnson emphasizes.

Hero has about 4K bytes on board. He comes with a teaching pendant which is a remote control that can guide him through activities. He moves around rooms, talks, has a numeric keyboard and can be programmed via a microcomputer.

"Obviously today's robots have limitations. I think the mass media has underestimated and overestimated robot capabilities," complains Doug Bonham, director of educational marketing and development for the Heath company, Benton Harbor, Mich. "They compare robots to R2D2s (movie robots) instead of looking at what 'real' robots can do. Hero has limitations. Its arm can only carry about a pound. The primary purpose of this robot is education."

But Hero I is not the last robot Heath plans to develop, Johnson adds. This product is as flexible as the program written for it. When the Heath Company's users groups, now nearly 20,000 persons, form a separate section for programming

yond the company's original projections. This manufacturer is finding a backlog of orders for Hero rapidly piling up.

Tasman Turtle

Flexible Systems, Hobart, Australia has announced it too will begin to sell its product line of Tasman Turtles, an easy-to-use programmable robot, through retail outlets. Harvard Associates in Somerville, Mass., will be the distributor of the product.

According to Andre Rossi, marketing director, and Bill Glass, company president, the turtle is a peripheral output device for a computer. Currently it is being used in schools to introduce youngsters, and some oldsters, to robotics.

A Tasman Turtle stands some 10 inches, is domed shaped (like a turtle), measures 14 inches in diameter and has a sensor band on four sides so it can move away from objects. Additionally, it comes with a vocabulary of 150 words which can be expanded to 600 words.

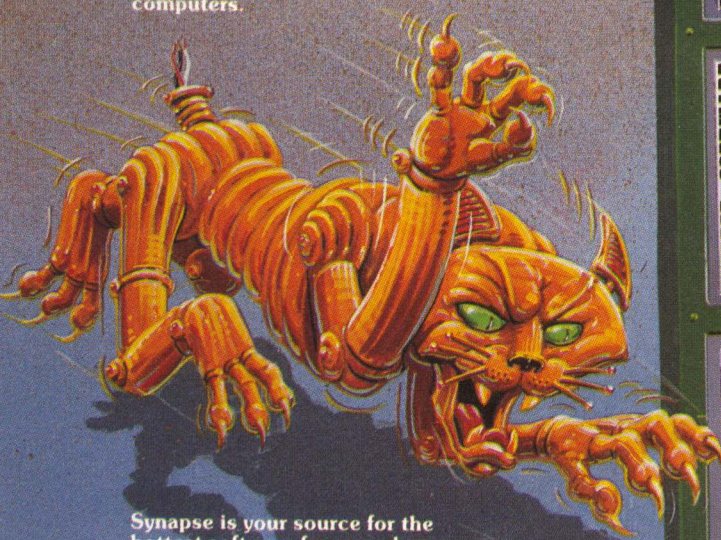This turtle, developed at MIT and in Scotland, Adrian Firth, part own-

More robots

Other robot-like products that have recently received attention in the mass media are—ITSABOX, with a programmable arm, and interfacing to Apple IIs, TRS-80s and PMC-80s, and intelligent Mini-Mover-5, which comes with a 17.5-inch reaching capacity and has a 6502 CPU on the base.

Professional "hacker" and inventor Gene Oldfield is also developing a home robot in his garage-like workshop called Robot Repair, Sacramento, Calif. His robot, still nameless, will fit into a 22 inch cube-like frame so, he says, it can be shipped UPS.

In the end

A robot's weekday usually ends with the turning on of a dishwasher, a final sweep of the kitchen floor and the turning off of the outside lights. He weakly heads toward his personal outlet and plugs in. While he gets rejuvenated, his sensors dull slightly, his body lights dim and he settles into his nightly monitor-the-home mode. ∎

How to reach the total computer resale market.
Computer Merchandising Software Merchandising

Sales Tools Spur Retailing

> **"P.O.P. materials act as an extra sales-person in the showroom—and they're cheaper than one, too...They spark interest. A salesman can't show every available thing."**

(**Editor's note:** This is part II in a three-part series in which Wolf Schneider looks at retail imaging and displays. Part I discussed seductive software displays, and part III, to appear next month, will explore retail imaging and involvement in community politics.)

By Wolf Schneider

With the minute-by-minute spontaneous generation of new product lines, retailers and consumers are having a hard time finding their way through the constantly expanding software marketplace. How to tell if an item fits your product mix or individual expectations? Point-of-sales tools—from posters to window banners to tent cards and counter-toppers to fliers and brochures to displays to new-age interactive demonstration centers—can help.

Video and computer software dealers are looking for increased merchandising support from manufacturers, and point-of-purchase aids are a natural suggestion. After all, they work in the audio, publishing, and movie entertainment fields, and everyone—consumers, salespeople, distributors, and manufacturers— is already familiar with them. Or are they?

Manufacturer support

Bob Meyer, president of Soft Byte, Tarzana, Calif., openly berates the sophistication of software manufacturers. "The problem is," he believes, "we're dealing in an industry that's dominated by computer hobbyists and engineers—the business and marketing people need to turn it into a real business. The video game manufacturers like Atari are definitely doing a better job of marketing (than the computer software manufacturers)—they're more business oriented because they've been in business for awhile.

"I mean, a customer spends hundreds of dollars for the product!" exclaims Meyer. "Granted, the program inside is incredible, but it's packaged in some 'flaky' notebook. Come on, I wouldn't like it. Still, today it's a quantum leap from two years ago when the programs came in plastic baggies with photo copied pages inside. It's definitely improved, but they've still got miles to go before they sleep.

"No manufacturer is doing a good job," Meyer appraises, "but it's getting better. Overall, most of the companies recognize that they're incredibly substandard in their merchandising efforts. For computer games, Broderbund, On Line, and Sirius are the best. Their materials are nothing excellent.

"State of the Art started improving in the business category," he reflects, "and now the others are emulating them. Accounting Plus and Micro (are pretty good)."

Wayne Keller, manager of The Computer Store, Burlington, Mass. agrees the manufacturers are not fulfilling dealers' P.O.P. needs. "Manufacturers could do better," he comments. "It's due to a lack of effort. Some of the reps in the area don't even come in and cover us."

At Nickelodeon in Century City, Calif., video merchandise manager Chaz Austin explains that his store's interior design, with track and neon lighting, and reflective black glass cases, prohibits the use of in-store P.O.P: "We use it only in our huge front window, and we never have enough."

He also points out that generally P.O.P. comes out a few weeks behind the merchandise: "That's not support. That's like sending an army into battle and telling them that the guns will be coming in a few weeks."

Retailers' varied needs

Although all the retailers interviewed by SM agree that they pine for increased point of sales support, their individual choices are somewhat varied in nature.

Jim Chamberlin, president of the Studio City, Calif. franchise of Programs Unlimited, selling computer software, wants more posters; while Dennis Wilcox, director of marketing for the nationwide chain, is more demanding—he asks for tent cards, signage, banners, brochures, brochure holders and self-running interactive demos.

In St. Petersburg, Fla., Richard Smith, general manager of Media Concepts, the video software distributorship, and principle of the Video Corner retail outlets, requests freestanding displays with multiple products. "I like best something that holds the product in quantity and has information on it so a person can pick it up, look at it and buy it," he explains.

The Computer Store's Kehler requests software demo packages, posters, videotapes that sell and train, diskette demos, and continuous self-running demos for his Massachusetts shop.

In Clawson, Mich., Computer

Mart president Rick Inatome also sees a need for the more sophisticated interactive demonstration devices. "Interactive video and computer software demo units like CompuVision can cover several different lines in one little area, and continuously demonstrate," he comments.

"Stand-ups, posters and literature are becoming unnecessary," he prophesizes. "Most are great ideas, but they take up too much room on the sales floor, so they don't last long.

"People want the warmth that comes with a facsimile of the product; they want to actually see it work. They want interactive demos that help you learn, like the Introduction to Apple keyboard."

Some are traditionalists

Others are more traditional in their approach. Luc Serriere, merchandise manager for Peninsula Office Supplies in Redwood City, Calif. sells everything for the office—including computer software and hardware. He values countertoppers that are tied to national advertising campaigns as well as consumer literature. "They send us 25 brochures," he comments with exasperation, "and they last just half a day."

Soft Byte's Meyer further stresses the value of such booklets: "They allow the customer to pick up information on products and review it at their own leisure.

"We also need better boxes with better graphics, nicer colors and improved quality printing," he continues. "And more display items that we can hang up, stand up and put up, three-dimensionals...a complete general upgrading in total packaging."

At Nickelodeon, Austin prefers large stand-ups, mobiles and three-dimensionals for his huge storefront window.

Who's helping?

Austin feels that MCA is doing the best job in the video field, while Florida-based Smith opts for materials from Mattel, Allsop and Nortronics.

For computer support, dealers cite Apple (for their complete demo packages), Visicorp, Micropro (for their brochures and brochure-holders), State of the Art, Osborne (for their videotapes), IBM, Lotus, Xerox, Atari, and Altos. Many are also enthusiastic about the CompuVision demo center.

John Reese, president of recently-formed Tronix publishing, Inglewood, Calif. says: "We want to help them (the retailers) sell. I think the best thing a manufacturer can do is to listen and understand that the retailers know their business a lot better than the manufacturers know it."

To back up his statement and fulfill his dealers' needs, Reese offers a multifaceted P.O.P. program. "Our games are packaged in VCS-sized packages—it helps the retailers to have some level of standardization. On the package we have colorful illustrations. We supply a three-tiered, 12-pack, self-displaying merchandiser. We sell the 12 carts to the dealers and they get the "Tronix sampler" display package for free. It includes a header card which can serve as a stand-alone, easel-back countertopper, an 18- by 24-inch poster for each of three game titles, and a window banner. Big Bens is putting all of it up; the Broadway displays the 12-pack," he adds.

Computer manufacturer Epyx/Automated Simulations, Sunnyvale, Calif., has premiered an attractive Lucite™ display rack which holds a total of 24 units: four each of six different titles. Advertising manager Joyce Lane explains, the rack is free to dealers when they buy any 24 units. Dealers are encouraged to keep the rack displayed permanently atop a counter or hanging by J-hooks. They receive a free game as incentive to do so.

On the distributor level, Micro D, supplier of hardware, software and accessories on an international basis, began offering themed software P.O.P. displays back in July 1982. Their first display was a Back To School Education Center, made of corrugated cardboard, finely-finished and painted, with an independent header, according to vice president of advertising and marketing support, Dennis Trombley. Measuring two feet wide and two-and-a-half feet deep, it was free-standing and contained over 20 ti-

New Age P.O.P.

Among the most innovative new-age point-of-sale tools is the CompuVision interactive software video demonstration system. Selling for $2,895 each and leasing for approximately $110 per month, according to CompuVision president Mark Bunzel, there are approximately 200 model 1100s operating in retail stores throughout the U.S. A new model, the CompuVision 1200, was introduced at Winter CES, for use by mass merchandisers.

Use of the CompuVision center involves a joint financial commitment from both the retailer and the manufacturers. While the dealer pays to buy or rent the hardware, the manufacturers pay to use the medium for their advertisements. Advanced Logic Systems, Broderbund, Datamost, Infocom, Sierra On-Line Systems, VisiCorp, Tronix, and a host of others have seen fit to make use of the opportunity.

"It's been a two-and-a-half-year venture," comments Bunzel. "CompuVision helps both the retailer and the customer; there are too many good products out there for the salespeople to understand each one. And demo disks are not accurate—you have to boot the program up, insert it, load, and punch the keys. With CompuVision, there's more discussion about what the program can actually do. It's more applications oriented than most point-of-sale tools."

Called "the penultimate point-of-purchase display tool" by one retailer, the CompuVision centers are deemed significantly helpful by many.

—W.S.

tles, two-to-three deep depending on their individual sizes.

This past Christmas, Micro D created 400 each of separate displays for Apple-compatible, Atari-compatible and Texas Instruments software. The displays were built in different color schemes, but configured similarly with black trays containing the software in tiers, six-

foot tall headers with a Santa Claus figure, and hanging ceiling banners, according to Trombley.

Currently, the company is rolling out their Hot Rack counter-topper, designed to be placed right next to the cash register, and contain the top-selling entertainment software. "It's a whole merchandising system," Trombley states. "They (the

retailers) tell us they want $1,000 of merchandise in there and we maintain it that way. We make recommendations on what they should order, based on our sell-through statistics."

Sourcing, purchasing, and designing the POP displays is difficult due to the lack of industry standardization, but Trombley feels that they provide needed immediacy, eye-catching appeal, and convenience for the shopper.

Some Tips From The Bookstores

B. Dalton Bookseller, one of the nation's largest book chains with 660 locations, centralizes display directives at their corporate headquarters in Minneapolis. Divisional merchandise manager Tim Higgins strives for, "maximum exposure of the product. We feel that the books themselves are the attractions." Sound familiar? Let's look at the techniques the bookworms employ.

It's all an organized system at B. Dalton. Themes and positioning—not color—most often tie the different displays together. Up to 12 themes are suggested by corporate headquarters for every six-week period. Recommended bibliographies are prepared. Large 25-inch by 36-inch overhead signs accompany the top two themes—they can be displayed in-store or in the window. At press time, these were "Winds of War" (to coincide with the TV miniseries) and "computer books."

For "Winds of War," several hundred Herman Wouk books, as well as other novels about World War II, were spotlighted in the front of the stores on a climbing display underneath the corresponding overhead sign. The "computer books" display consisted of several dozen computer books arranged on a table, in pyramid style and face front, again, under the overhead sign.

Lesser themes might include travel books, business books, juvenile books, and so on. Headquarters often gets some promotional help in creating themes from the publishers.

Higgins itemizes his display goals: 1) to sell books, 2) to show they're on top of trends, 3) to show they have a thorough selection, 4) to show they offer value for the money.

A January theme for fitness and health, spearheaded by "an arresting photo of a young woman in leotards exercising, really helped sales," according to Higgins. Regular seasonal displays for Father's Day, graduation, Christmas, Halloween, Easter and St. Patrick's Day are also quite effective. Still, a frustrated Higgins admits, "With most displays, it's difficult to get proof positive that the display worked."

At Brentano's, Beverly Hills, hardcover buyer Carlos Barajas changes the store's Rodeo Drive and Wilshire Boulevard windows twice a month. He usually goes with either a mass building-block effect using a single title, or a stark minimal display with perhaps some POP.

"Our most successful window," remembers Barajas, "was a fantasy window for a nonbook item—stuffed dolls that illustrator Maurice Sendak had created from his books. We got real foliage and branches and did a forest scene, stringing the dolls and animals from the branches. Later, we brought it in the store."

Another popular window display was for a 3-D book that came with 3-D eyeglasses. They strung a giant-sized pair of 3-D glasses across the window and did an abstract design with the books. People came in not only to buy the books, but also wanting the giant 3-D glasses.

Eye-catching is Baraja's by-word, and he stresses showing off the product with an artistic conception utilizing color, composition, arrangement and design.

—*W.S.*

The results

Increased sales, directly attributable to the increased sales effort, contest the retailers. They believe that the customers respond to stepped-up marketing endeavors.

"P.O.P. materials act as an extra salesperson in the showroom—and they're cheaper than one, too," St. Petersburg's Smith asserts jokingly. "If they're attractive and give information, they're helpful. They spark interest. A salesman can't show every available thing. Point-of-sales tools are great for customers who like to browse."

Soft Byte's Meyer, Peninsula Office Supplies' Serriere, and Joe Harmon, vice president of merchandise at CompuShop in Richardson, Texas, all stress the value of giveaway brochures which the serious consumer can pursue at his (or her) leisure. "They make the customer realize that you're selling what they've seen on TV," says Serriere, while Harmon feels that, "they're very important in terms of motivating customers."

The Computer Store's Kehler notes that, P.O.P. tools "allow us to organize our thoughts while demonstrating a product—they give us the ability to fully explain the features to a customer."

And Program Unlimited's Wilcox, who says that P.O.P. support is definitely a factor in deciding which product lines to take on, believes: "Packaging, brochures, everything adds to the credibility of the line for the customer. The most successful companies have a good combination of support materials." ∎

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Peripherals: The Liberating Element

Ron Lipking

By Neil Spann

Pressure is mounting on retailers to keep pace with the increasing number of peripheral items reaching the marketplace. This year hundreds of new electronic devices—printers, disk drives, joysticks, cables, etc.—will be reaching the market.

Retailers, while selective, still have established policies of trying to test each of the major peripheral items which come onto the market for most of the major lines. Deciding whether or not to stock the new items is one objective of this process. Another, and a quite important one, is keeping informed on what is available.

Knowing the limitations of a peripheral item is considered essential for all salespeople at several specialty stores. "It goes without saying that our salespeople would know all of its capabilities. But what we must guard against is that an enthusiastic salesperson might oversell a product or suggest to a consumer that it would perform a service which it wasn't designed to do," explains Tom Dolby, vice presi-

dent in charge of technical support at Jonathan's Apple, of Marlton, N.J. He is also a computer addict who welcomes any new electronic device as he would the morning sunrise.

Testing each new peripheral personally, however simple, is *not* possible any longer. Last year there were scores of new add-ons for the Apple and IBM, the store's two major lines. "In the software area alone there are 32,000 programs for the Apple and about 1,200 for the IBM PC," he points out.

What is Dolby doing to keep track? He says his only alternative is to assign research responsibilities to other members of the store and meet each week for a product analysis.

Other retailers are taking a similar approach. Additionally, several attempt to negotiate with suppliers to take on a new item on a trial basis for a one-month period. Testing, in most cases, means hooking up the new item to a system and having it work as a self-running demo on the sales floor. This enables re-

tailers to incorporate consumer reaction into their final judgment.

Growth in communications

Computer hardware and software merchandisers say their bestsellers in the peripheral area are printers, disk drives, modems, 12-inch green-screen monitors, 80-column cards, and all the cables and hook-ups which are required for connecting these major items.

Several predict an explosion during the next two years in the communications area. For example, voice synthesis already is available for the Apple and IBM machines. Consumers generally find this is a more efficient way to communicate with their machine. It saves them time. According to industry reports, the physically handicapped community finds voice will help them delve deeper into the ever-expanding computer world.

Users also are responsive to new, time-calendar clock cards. They provide practical home security. The computer during the homeowner's absence takes charge of the household lights and appliances, turning them off and on routinely for a week, a month, or even a full year.

These applications are only a beginning. Coming soon are electronic mailings from the home and the exchange of software over the telephone.

"The entire area of communications will get hotter. Consumers are beginning to realize that machines talk more cheaply than people. I'm expecting an exciting new variety of applications," says Ron Hosek, owner of Hands On Computers in Atlanta.

Consumers more savvy

Impulse buying is a thing of past where hardware peripherals are involved. Hosek notes that consumers in his area have during the last

six months to a year become rather sophisticated. They purchase the basic system first and after becoming familiar with it return for the add-ons, he notes.

Dolby agrees. They have their needs pretty well defined. "You won't find many people today who buy the printer or second disk drive on the first pop. Normally," Dolby says, "they buy the standard unit with either 48K or 64K, and one disk drive and the 12-inch green-screen monitor.

"After becoming familiar with their system at home, they come to a realization that some of the software packages they want to run would work more elegantly and faster with two drives."

> "After becoming familiar with their system at home, they come to the realization that some of the software packages they want to run would work more elegantly and faster with two disk drives."

Dolby finds that most customers, after working with the second disk drive, will return to buy a printer.

"Then after that there's usually a long time lag, and they won't buy any more of the hardware peripherals for awhile. But they do keep coming back for more software."

Consumer savvy appears in most markets. Where the information comes from is debatable. Some are gaining an awareness from friends and neighbors. Others appear to be reading up ahead of time in computer magazines, notes Joe Alinsky, owner of Indiana Computer Center, Michigan City, Ind. Alinsky says his salespeople are trained to cover all the possible applications nonetheless.

"Make the suggestion. Show everything the machine is capable of doing during the initial sale. The customer needs to realize that his investment hasn't stopped with the computer," says the store manager of a New York-based electronics store chain.

The New Yorker agrees that most customers are more sophisticated, but they still must be "babied" a bit. "There are still shoppers and buyers who believe that the computer is supposed to do everything. When they leave your store with that thought," he says, "then they don't understand the concept."

So knowing that the customer making his initial purchase is unlikely to buy the add-on printer, second disk drive or a modem, why bother? Retailers explain that the customer will eventually learn the value of these add-ons and purchase them later. When the add-ons have not been explained during the initial presentation, however, the consensus is that most customers feel slighted and will purchased the add-ons at another store.

Views on inventory

Breadth, not depth, is recommended in the area of peripheral inventories, the retailers say. "Change comes so rapidly that stocking an item in depth can be a costly mistake. Prices are dropping too fast," says Bill Spiegel, co-owner of Brooklyn Data Systems, Brooklyn, N.Y.

Selectivity is another key. "There are so many to choose from today. We can't carry everything. We've had to make a decision what we're going to push, but we still need to know about the products we're not carrying and why ours are better," Spiegel adds.

Spiegel admits to making mistakes in the peripheral area. Initially the store pitted one item against another. Concentrating only on the positives proved to be a more effective approach.

One to show and two to go may be a cliche but the formula works for Primus Equipment, Inc., of Joliet, Il. Operations manager John Flynn notes that the rapid expansion of peripheral items suggests sudden shifts in pricing.

Shifts or advances in technology are prompting retailers to expand their peripheral SKU's. Not surprisingly, they will likely broaden their offerings in the areas selling best: printers, disk drives, modems and monitors.

How much growth is expected? Ron Hosek predicts his peripheral business will double sales volume of last year. "We're expecting great things in this area. Peripherals are becoming much more intelligent and in most instances more expensive," he says.

Others agree. John Flynn: "Our store will have its greatest growth in this area over the next two years." In Atlanta, Hosek lists two reasons why expansion is good business. On the one hand, he says, peripherals are where the margins are. "It's highly profitable. But we also have to expand," he notes, "to maintain our market position."

From New Jersey, Tom Dolby gives this perspective on the category's growth. He opines, "Look at it this way. In 1978 there were five peripherals for the Apple computer when it was introduced and there are more than 800 now. The IBM PC has been out over a year and there are more than 200 peripherals for the PC already and about 1,200 software packages."

Following an if-ya-got-it-show-it philosophy is the first step in merchandising peripherals effectively. The product should be connected with a working system and given good visibility. Then encourage the customer to work with it and gain familiarity. That can be more valuable in the selling process than 20 minutes of sales presentation, thinks Richard Rosen, president, of The Micro Center, of Amherst, N.Y.

▪

Neil Spann is a veteran writer and observer of the consumer electronics scene.

WICO introduces the IBM Trackball, model 50-2090. Features include two independent fire buttons, phenolic ball with 360° movement, sealed steel bearings and spring suspension. Suggested retail: $89.95.

WICO introduces "The Boss" joystick, the company's first entry into a new line of popularly-priced game controls for home video game and personal computer systems. It features five built-in lead switches. Suggested list: $19.95.
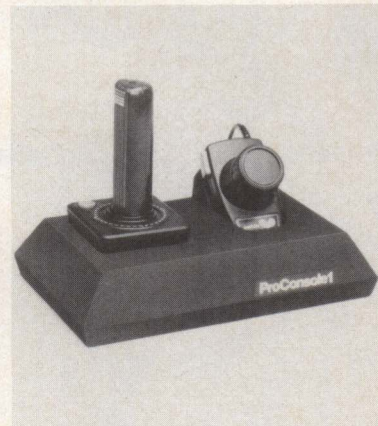
DMG Consumer Products introduces the Pro Console I, designed to fit both the Atari and Sears home video systems. Each unit comes with a pair of weighted stabilization blocks which houses the joystick and paddle controllers for optimum player control. Suggested list: $24.95.
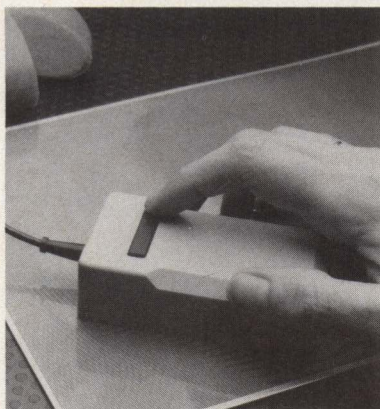
USI International previews the OptoMouse™ 2000, equipped with an on-board microprocessor. Slated for retail outlets, the unit plugs into home, business or personal computer systems. Optical sensors and the built-in microprocessor provide users with accurate cursor positioning, graphics input and menu selection options. Initial introduction will be a direct interface with the IBM PC and BASIC. Additionally, A WordStar overlay for $49.95 is also available. OptoMouse will interface with any software that has cursor positioning capabilities. Suggested list for OptoMouse: $179.95.
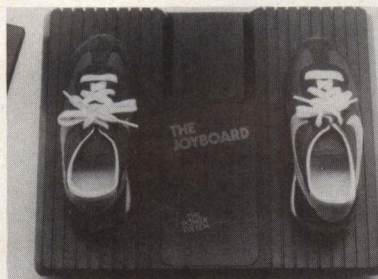
AMIGA Corp. introduces the Joyboard™ for the Atari 2600 VCS which, the firm claims, brings a totally new dimension to video game play. With the Joyboard, game control is no longer limited to the hands; it can be controlled by using the entire body. It can be stood on to simulate skiing, sat on for bobsledding or even layed on for body surfing. The Joyboard comes with *Mogul Maniac,* a first-person skiing/slalom simulation game. Available in two versions, one comes on cassette for The Power Module. Suggested list: $39.95. A second version comes on a ROM cartridge which can be plugged directly into the Atari VCS. Suggested list: $49.95.
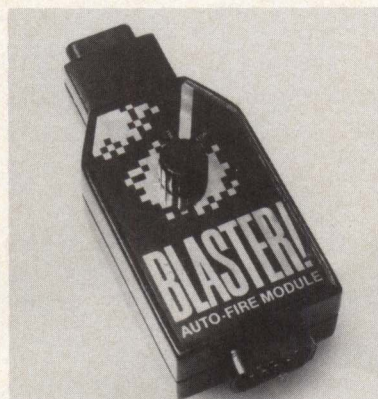
QUESTAR introduces the "Blaster!" plug-in, adjustable speed, automatic firing module for the Atari VCS, 400, 800; ColecoVision, Sears Tele-Games and the Commodore VIC-20. It plugs in between the game console and the joystick to add automatic firepower to fast action, shoot-em-up games. It converts single shot firing into high speed machine gun action, up to 20 shots per second. Suggested list $8.95.

What's Coming This Spring?
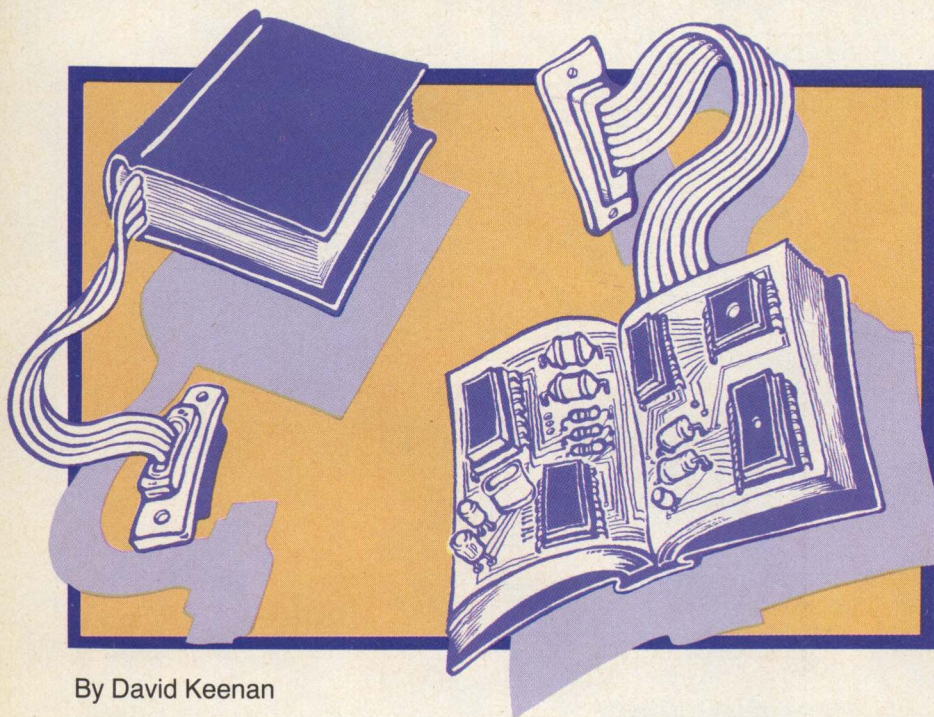
Ron Lipking

By David Keenan

"**M**oving like wildfire," best describes how books about computer hardware and software are selling. Name any computer-related subject and you will find there's a demand for books regarding that area.

Introductory books on computers appear to be in the highest demand. And with more purchases of microcomputers expected, requests for such books will skyrocket.

So what is new in introductory books for the spring?

According to George Stanley, marketing director for Prentice Hall, identifying the computer intro market poses a problem. "There are businessmen who have new office computers and 13-year-olds who want to know more about their first microcomputer. Each requires a different level of writing."

Quite a few of these intro books are written by computer scientists who use terminology that may confuse the lay reader. The books that seem to be selling best are the ones written in easy-to-understand language.

Dean Marion, spokesman for Datamost, Inc., says the books that do the best are the ones that are about a specific machine or language. "Consumers will buy a machine and it ends up on a shelf gathering dust because they don't know how to use it. Lower-end machine books really supply a need because many times the manuals are just inadequate for the user's needs."

The machine-specific books that sell the best are usually for those microcomputers that are new to the market. Several retailers would probably give their right arm for an introductory book about the Apple IIe or the Commodore 64. This is not to say that other machine-specific books don't do well; on the contrary.

Stanley says that Prentice Hall's book on the IBM Personal Computer sold some 60,000 copies in a six month period. When the company predicted a downturn in sales of books on some of the older machines the market actually expanded and the books are doing better now than three months ago.

Spring's general interest reading **Computer In Your Pocket** (Datamost Inc., $14.95), by Ed Faulk details the history of the latest generation of computers—micros. Faulk takes the reader through the possibilities and applications available to users of the new microcomputers of today.

Another general-interest computer book released this spring is **How To Cope With Computers: A Survival Guide For The Computer Age** (Hayden, $7.95), by Tom Logsdon. The author describes the way computers have become more prevalent in everyday life. Written for the informed layman and the computer hobbyist, the book contains an introduction to BASIC, and sections on purchasing and using home computers. In addition to a look at other aspects of the computer age, Logsdon provides a survey of possible careers in the field.

Computer Anatomy For Beginners (Reston), by Marlin Ouverson, explains computers to a novice user. Presented in two parts, the book first deals with computers in general. Fast moving, easily read chapters move one quickly through the world of computers. Basic explanations on how computers work, what languages are and how to use a computer are included. The second section of the book devotes itself to explaining the possible uses for microcomputers. Games, business applications and networking are all explained.

With the increasing use of microcomputers in educational settings, parents of school-age children can stay abreast of what their children are doing in school by reading **Microcomputers: A Parents' Guide** (John Wiley & Sons, Inc., $8.95), by Kenneth P. Goldberg & Robert D. Sherwood. This book helps to diminish the gap between children's computer literacy and what parents don't know about computers. Sub-

BOOKS

jects discussed include information on types of computers and languages used and how parents can maximize the educational benefits of microcomputers.

Machine-specific books

Two new books from Datamost's "Elementary" series are **The Elementary Commodore 64** ($14.95), by William B. Sanders and **The Elementary Timex/Sinclair** ($14.95), also by Sanders. The first book ranges from telling the reader how to hook up a Commodore 64 to using utility programs. The book is written in clear, easy-to-understand language, contains 10 chapters and comes spiral bound.

Written in much the same style as

Timex Sinclair 1000 and ZX81 (Sybex), by Douglas Hergert, and **The Sinclair ZX81** (Tab Books Inc. $16.95), by Randle Hurley. The first, written at the novice level, takes a new user through the basic operation of a computer to the machine's optimum capabilities. Instructions on how to program are included and enable the user to start writing programs that do calculations, make graphs and provide entertainment.

The second book also contains practical programs for the Sinclair user. Basically a source book, it contains discussions on subjects as diverse as personal finances, banking, bulk storage, word juggling and hardware modification.

Lohnmuller attempts to provide a complete overview of the business application computer industry with his book. He defines the difference between business and scientific computing as well as introducing the reader to machine structure, assembly level programming, flowcharting and program structure. The book also includes chapters on data representation, systems analysis and the future of computers in the business world.

Veit's book is a newly revised second edition that introduces the business manager to the world of business computers. The author, a small-business consultant, draws from his experience in the field to provide advice on the potentials and pitfalls of using a computer in business. Some subjects looked at: software purchasing, system requirements, new word processing packages, telecommunications and networking.

> The machine-specific books that sell the best are usually for those microcomputers that are new to the market. Several retailers would give their right arm for an introductory book about the Apple IIe or the Commodore 64.

the rest of the series, the second book contains a plethora of information about the Timex/Sinclair microcomputers. As the price continues to drop on what was once a $99 computer, more and more purchasers will be looking for a book that provides information about how to put this computer to good use.

For the beginning computer user who needs help figuring out how to use an IBM PC, Sybex has a book—**The ABC's Of The IBM**, by William Edward Willoughby & Nancy Foster Jacobs. This book helps the user realize the full potential of an IBM PC. The book includes instructions on everything from putting the system together to selecting and using commercially available software packages. One hundred pages of plain, easy-to-understand terminology teaches the reader how to read, erase, name and manipulate files on the IBM PC.

Two more books for the lower-end microcomputer user are **Your**

Youngsters who own a TI 99/4A will be happy to know that Edward Carlson, author of Datamost, Inc.'s "Kids and Series," has written a new book. **Kids And The TI 99/4A** ($19.95) is an instructional guide written in the same manner as the rest of the series. It contains parent and teacher sections to help guide children through the learning process. In addition, sample programs, questions and problems work to stimulate children's problem solving processes. Answers are included in the back of the book.

Business

For business-oriented microcomputer users there are three new books worth taking a look at. Two of them are **Introduction To Business Programming And Systems Analysis** (Tab Books Inc. $12.95 paper and $18.95 hard), by Keith Lohnmuller and **Using Microcomputers In Business: A Guide For The Perplexed** (Hayden $12.95), by Stanley Veit.

A Guide For Selecting Computers And Software For Small Businesses (Reston), is the third book that provides information to the potential business system purchaser. Written by Paul G. Enockson, an applications consultant, the book acts as a guide for the small businessman. Enockson interestingly uses a flowchart to explain the main ideas, consequently ending up with an intelligible, easy-to-follow manual. The book takes the potential purchaser all the way from the initial idea that a system should be bought to final installation and manufacturer support contracts. An appendix includes a glossary and checklists to follow while purchasing a system.

In addition to books geared toward popular computer owners, there are also books aimed at owners of the more popular software packages. One such book is the **The Foolproof Guide To Scripsit** (Sybex) by Jeff Berner. It contains information about *Scriptsit* that users will find vital. Starting out procedures, document creation, manuscript polishing, and how to prepare form letters are all subjects covered in the book.

Practical Wordstar Uses (Sy-

bex), by Julie Anne Arca, deals with the popular word processing package of the same name. Released in April, this book contains an overview of the *Wordstar* program and instructions on how to perform essential office jobs with the package. A task oriented user's guide, the book offers information about how to use *Wordstar* for creating letters, newsletters, and documents. It also gives tips on designing and implementing applications.

For software spreadsheet users there are two new books, **How To Use Supercalc** (Tab Books Inc., $25.95), by Deborrah Smithy-Willis, Jerry Willis and Merl K. Miller, and **Mastering VisiCalc** (Sybex) by Douglas Hergert. The first book offers itself as a complete guide to the *Supercalc* software package. It contains an introduction to the program and discusses all the *Supercalc* functions. The second book provides a step by step look at the

popular *VisiCalc* spread-sheet program. It provides information to the reader about how to use the program for tasks from planning to examining projection scenarios.

Language books also make up a portion of the computer book market. After all, what's a computer good for if you can't program it? **Doing Business With Pascal** (Sybex), by Douglas Hergert and Richard Hergert, is one such language book. It provides information about how Pascal can be used in business applications. It covers design, applications development, and system integration.

BASIC Exercises For The Atari (Sybex), by J.P. Lamoitier, is both language and machine specific. The latest in a series by Lamoitier, this book teaches BASIC on the Atari computer through actual hands on practice. Each of the fifty exercises contains a problem followed by a flowchart and a working

program. Subjects included are math, business, operations research, games and statistics.

Subroutine Sandwich (John Wiley & Sons, Inc.), by John P. Grillo and J.D. Robertson, satiates the appetite of BASIC users who are starved for useful subroutines to incorporate into their programs. Equally useful for novice programmers as well as the more experienced, the book acts as an excellent reference tool for BASIC users. It contains 36 subroutines, as well as introductory chapters about how to use and incorporate the subroutines into main programs.

Inside Atari BASIC (Reston), by Bill Carris provides information for three sets of Atari machine users—beginners, novices and seasoned-intermediate users. Written in a humorous style, this book takes the mystery out of operating the Atari microcomputers. The first part of the book deals with the basics of

programming while the second part deals with the more advanced aspects of graphics, colors and sounds.

Home user books

Bits, Bytes and Buzzwords (Dilithium press, $7.95) soon to be a new microcomputer television series this May, attempts to de-mystify computers and define the sometimes confusing "buzzwords" novice computer users sometimes encounter. The writer, Mark Garetz, is a self-taught purveyor of digital electronics and microcomputers. This 110-page book contains a glossary of computer terms to aid the reader.

Geared for computer enthusiasts, **The Computer Cookbook** (Prentice Hall, $12.95 paper; $21.95 cloth) is a reference guide on how to put together microcomputer systems from various components. Literally a cookbook, it tells the ingredients and explains the method to building a system. The author, William Bates, specializes in the development of advanced information systems and services.

Arthur Naiman's book, **Word Processing Buyer's Guide** (McGraw-Hill Book Company, $15.95) provides answers to several questions often asked by a potential word processing buyer or user. It tells readers how to edit, enter and print. Additionally, it provides a checklist to follow when shopping for a word processor or a microcomputer.

TRS-80 Extended Color Basic (Prentice Hall $12.95 paper; 19.95 cloth) is suitable for both classroom and home self-instruction. It is a hands-on approach to BASIC programming on the TRS-80 color computer. It comes complete with illustrated examples from the computer's video screen. Written by Richard Haskell, Ph.D., who has designed several microprocessor-based systems.

The International Microcomputer Dictionary (Sybex) is a comprehensive dictionary of computer terms. This pocket book contains sections on standards and specifications, microcomputer companies and a listing of commonly used acronyms.

And last, but not least, for game players is **Games Apples Play** (Datamost, Inc, $14.95), by Mat Weinstock. The book contains a collection of games written in Applesoft BASIC. An amusing text with numerous illustrations demonstrates to the reader the wide variety of games possible with an Apple computer. Instructions are included to the user on how to modify and create games.

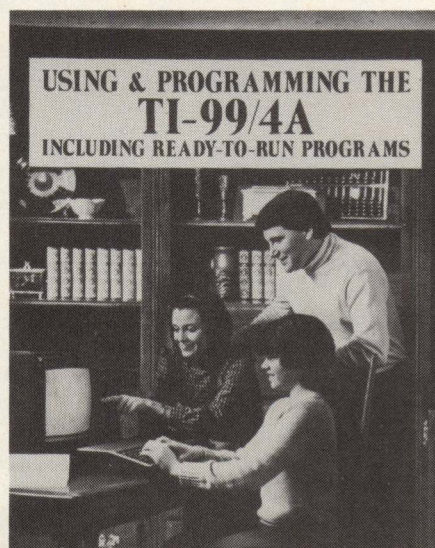*David Keenan writes and studies about computer science at the University of California, Santa Cruz.*

COMMITTEE SOFTWARE

Seven months ago JoAnn Brissenden and Chuck Bennett took the leap. Brissenden had been researching the booming computer field and Bennett decided to fuse his advertising operation with high tech retailing.

They got a second-floor storefront on L.A.'s busy Ventura Boulevard in the San Fernando Valley's Sherman Oaks region, where Valley Girls cruise and businessmen lunch, and set up shop.

"We get a lot of referrals from the five hardware stores located within blocks," Brissenden comments. "That's our single biggest advantage. Our personal service encourages repeat customers too. The advertising is a slower-building thing—it could be a year later before they come in."

Committee Software sells 90 percent software and 10 percent hardware add-ons like disk drives, monitors, paper, blank disks, disk holders and printers. Demonstration hardware includes the Atari 800, IBM PC, Apple and TRS-80. *VisiCalc* and artsci business programs are most popular, with educational offerings next in demand, and games lagging behind. Broderbund, Synapse, Datamost, Spinnaker and Infocom products are top sellers, while *Deadline, Zork* and other adventure games do better here than the arcade titles.

The typical customer to stroll into this future shop? "He's male, in his mid-to-late 30s, college-educated, upper middle class, and he bought a computer because he felt he needed to have one to keep up with the times," Bissenden observes.

"Half of them have the hardware already, the others are just looking to see what computers are like. I spend about 15 minutes on the average explaining computers to the uninitiated. I refer them to a store in the area that sells hardware and then they come back to buy the software," she explains.

Why? "Because I'm so nice,"

Committee Software uses banners and signs to attract customers.

Photos by Wolf Schneider

Brissenden jokes. "The original time, that first 15 minutes of personal attention, is what makes our repeat business."

"Service is the key to the whole thing," partner Bennett chimes in.

"People come in off the street with a lot of questions. We're willing to sit down with them and work out their problems. We give them intelligent solutions, growth patterns for their business, or whatever they need. Then they come back. And the repeat business is really what's making us grow."

At the beginning, a desire to save time and effort prompts customers to buy an accounting program such as the popular *Home Accountant,* or a word processing package like *Easy Writer.* Later, they return for educational and game software. More women are interested in educational products, but on the whole Brissenden feels that women are just not very attracted to computers.

While program costs start at $18 apiece, the average customer will lay out $70 to $100 for a couple of recreational items, or perhaps $700 for a *dBase II* business program.

"The magazines," admits Brissenden, "are more of a service than a money maker. But the books are more like the programs in that they turn a good profit."

Committee Software is unique in that it incorporates its own in-house ad agency. A high graphics awareness pervades the operation. Promotions often feature appearances by Cal State Northridge professor Saul Bernstein, whose computer-generated posters are sold at the shop for $6 each. T-shirts are also available, but they have been doing better as a promotional giveaways than as money-making products.

In-house salespeople are glad to create computer portraits for shoppers. "They use the Apple and a drawing tablet called *VersaWriter,"* Brissenden explains. "It's digitized so you move the control around and it prints out on the printer. It's a selling point for the *VersaWriter*—it comes with everything you need. Someone who isn't an artist can just trace."

Print ads are placed in the L.A. Times, the local Warner Center News, user group newsletters, the industrial yellow pages and the

Chamber of Commerce Directory. Radio ads have been experimented with at adult-formatted Valley station KGIL, and at mellow rock outlet KNX-FM.

More results, however, have come from direct mail pieces to local Valley businesses, often as part of a comprehensive neighborhood package.

"We've got a newsletter and are generating our own mailing list," Brissenden comments. "We plan to do more direct mail. Once you've had the customer in-store, follow-up mailings are very important. The newsletter allows us to introduce new products."

An unusual area of strength for Committee Software lies in their typesetting operation, spearheaded by Bennett. Fliers and ads promote the concept of typesetting at home with a microcomputer.

"They bring in their diskette, or send it in via modem," Bennett elaborates. "I put codes in to tell the typesetting equipment what we want. The typesetter never gets involved, but I use his equipment. He holds the work until late at night when it's cheaper, and it's done completely by machine. Any of the home computers can hook up with us. Doing typesetting this way saves money. It's great for writers and newsletters."

Customers also make use of the shop's communications flexibility.

"On the Apple, for instance, you can only see 40 characters across," Brissenden says. "We can transfer the information to an IBM and see 80 characters at once. We offer versatility. We can adapt different programs to different hardware or different peripherals."

Brissenden and Bennett both foresee additional expansion in the telecommunications and data communications areas.

"Modems, phone lines, and BSRs will be used for security," Bennett predicts. "They will be sensor controls for turning on lights, heating, air conditioning and even sprinklers."

"We plan to be more of a service business as opposed to a mass merchandiser," Brissenden contributes. "In the future, we'll be more specialized with small business and home computers for both the security and business applications.

"The problem right now is with copying. People are copying software through user groups and clubs. It makes you almost not want to sell recreational games. There are an awful lot of software programs written just to break codes, and then they're sold mail-order. The games are the worst. We've never sold a game to a member of the Atari user's club. They've got a library there.

"It's a problem with the business

Co-owner JoAnn Brissenden demonstrates programs in the private conference area.

Computer-generated graphics like these are a major selling point here.

programs too," she continues. "But with the business titles they can't get the manuals unless they want to copy 150 pages.

"It's not a problem with the educational programs. That sort of person isn't interested in going against copyright laws," Brissenden guesses. "With the games they don't even think about it. It's like taping videocassettes. Educational needs are more specific. But everybody likes a game."

While the copying problem is probably the biggest that's confronted the partners, Brissenden admits that opening up shop has had its challenges: "I knew it couldn't fail, although it's been

much harder and rougher than I ever anticipated. After about four months we started making a profit."

She came to computers via a roundabout route at the telephone company. A telephone company employee her whole life, Brissenden had relocated from L.A. to San Francisco for a staff manager position at the company's request. Due to the American Telephone & Telegraph vestiture, she was layed off with one year's salary. She already had been working with a mainframe at the telephone company, and had been bitten by the futuristic bug.

"I got demographics from newspapers," Brissenden recalls. "I called editors and research depart-

ments at newspapers to find out how many people live in certain zip codes and what their income is.

"We determined the location of our store from the research. We contacted computer companies and research firms. Information On Demand up in Berkeley did some work for me. They're on The Source."

The place and date were set, and Committee Software opened its doors. Brissenden found herself swamped: "The things that really got me were the things the government requires: the L.A. city, the state, the federal, the payroll. Every month there's a tax report that has to be done. You're involved with ev-

ery phase of the operation in a small company like this. It's exciting but it's been really trying at times. It's fun though. I'd never go back to the telephone company—it seems like such a boring thing to me now. I could never do it again."

Just turned 40, Brissenden finds it stimulating to confront fresh opportunities and ideas each day. She is open to change. "At first," she says, "we stocked a little bit of everything. We were surprised how many books people wanted. We were planning not to discount at all, but you just can't stay in business and not discount in L.A."

The software-only concept, promulgated since there were quite a few hardware-only stores within blocks, has worked out well for Brissenden and Bennett; they find that the hardware/software reciprocity serves them well, and they are friends rather than competitors with the hardware stores.

An inventory program by Software Dimensions helps Brissenden to keep track of her merchandise. It's loaded onto a Radio Shack computer, since the Radio Shack is the least-used for demonstrations. The Apple and IBM are most used.

As summertime approaches, Brissenden and Bennett have decided to come to terms with their game inventory problem, and turn it around. "We're going to have a big advertising thrust for a June summer clearance sale of games and educational products," Brissenden states. "We'll put the products on sale at cost to get the traffic in. We'll be advertising it in user group newsletters, through our own direct mail list and in the L.A. *Times*. It'll be mainly the games on sale, and we might put a tent outside the store to draw attention to it."

Committee Software is run by a staff of six, with the personable Brissenden often on the streets pitching local businesses. Personality, the ability to get along well with people, and a desire to know computers are attributes that the partners look for in interviewing potential employees.

"Satisfied customers are your best salespeople," Brissenden adds.

The store is composed of 1,500 square feet, with 750 devoted to the public showroom, and the rest consisting of a private conference/demonstration area and offices. An open, comfortable atmosphere prevails.

It's not surprising to hear from Brissenden, "Almost all our customers return. Sometimes the first time they may not buy anything. But they come back." ∎

—Wolf Schneider

Softwaire Center

It started innocently enough. Glenn Johnson opened the Softwaire Centre in July 1981 and casually mentioned in an interview that he might like to franchise the operation someday. Within a few weeks, he'd received letters from more than 200 persons willing to take him up on the offer.

"It was a first," Johnson recalls. "Nobody had done a complete software store before." It took one year to perfect the technique, but now Johnson is sitting at the pinnacle of another computer success story. There are Softwaire Centres sprouting up around the country and there are plans for dramatic expansion into major urban areas throughout 1983.

"All the major objections are melting away. Once the franchise starts to prove itself, people will see that we're here for the long run and that we deliver what we promise."

The company, which bills itself as "the original softwaire store," has expanded well beyond its original location at 11768 West Pico Blvd. in West Los Angeles. There are franchises throughout California: in Beverly Hills, Oakland, Palo Alto, Pasadena, San Diego, Santa Ana and Torrance. A store is set to open in San Diego, with others planned for Sacramento, Sunnyvale, Walnut Creek and Westminster. Although the operation is based in California, Johnson is expanding into major cities outside the state. There are now shops in Minneapolis and Houston; Denver and Boston are the next likely targets.

Johnson projects 100 franchise stores by the end of 1983. "We're opening up at the rate of two a week," he explains.

What he has done, simply, is expand the concept developed for hamburgers and fried chicken to the computer software realm. In return for a franchise fee of $25,000 and a 5 percent royalty, Software Centres International grants the franchiser an exclusive contract for his area and the trademark right.
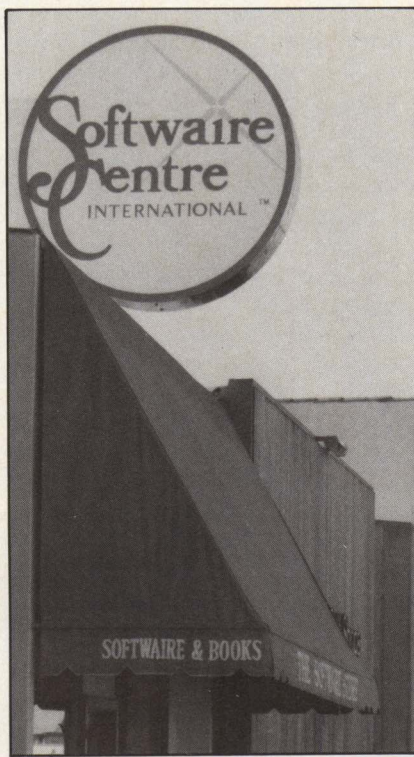
Begun by Glenn Johnson in July 1981, the Softwaire Centres are mushrooming into major computer software outlets.

The company provides the operator with a 300-page manual outlining every major facet of the business. There is a six day training course offered on store operations. National and local advertising are prepared. The interior is designed to maximize traffic flow. The week before a new store opens, company officials are available to coordinate every aspect of the premier.

"Every store opens with uniformity and they look alike," says Johnson. "They all complement one another very well. We provide the basic store layout and concept. There is a logical way to open up a store."

Johnson and his group also pay careful attention to a store's sales force "to teach them the product" so they will be selling properly. And a toll-free telephone number is provided "so they can get on-the-spot technical support."

After all the preliminary design and training work is done, responsibility is turned over to a field representative who helps the franchiser out with any unanticipated problems. And a public relations com-

pany will step in to pinpoint special promotions.

"If a franchiser had to hire all of these different people, this expertise would cost more than any amount he would pay in royalties to us," Johnson contends. Aside from the franchise and royalty fees, the individual operator can be charged 2.5 percent in advertising fees for his local area.

Johnson and his partners do not retain any ownership interest in the franchised properties, although they do still own the original Softwaire Centre in West Los Angeles and the second store in suburban Orange County.

He takes great interest in picking prime locations for the shops, feeling this will contribute greatly to their eventual success. He is pinpointing cities in the East and Midwest, and he says he already has 200 franchise deposits.

"There's a lot of East Coast activity as far down as Atlanta, Ga. We're not interested in secondary cities, 100,000 population or less. We're only interested in major markets of U.S. cities." Seattle, Denver, Dallas and Miami are mentioned as likely places to expand. By 1984 Johnson believes Softwaire Centres may be ready for Canada.

Johnson tries to place the stores near retail hardware outlets like I.B.M. computer centers or ComputerLand franchises. Softwaire Centres sell no hardware (a franchise usually has several systems to display software products, however), and Johnson figures the computer enthusiast will be drawn to the stores because he or she will be able to find a full array of support products. Everything from magazines to accounting software packages to ribbons and paper supplies are available.

"Our strategy is to go after the best selection of every system a computer owner needs once he buys a microcomputer. Ribbons, paper, supplies, magazines, books—a full, wide range of selections. We work real hard on developing the knowledge and ability of the salesman to help once a customer walks in the store."

Some items are sale priced, but Johnson says the approach is similar to one of a sporting goods store might take when running sales: store-wide savings on carefully selected items. "We have a lot of timely specials. We're constantly bringing new products in."

But he says it is rare to mark down the price of software items because of competitive discount pressure or as a lure for new customers. "We emphasize superior service and selection, but if we're not making any money, we'll die."

Indeed, most Softwaire Centres look remarkably alike and display a wide array of popular games and business software. In many ways, the shops resemble book stores with racks of magazines, computer books and software prominently displayed. Johnson estimates a franchiser needs at least $70,000 in inventory to do an adequate job, and he encourages store owners to stock $100,000 in merchandise as soon as feasible.

"There are more products coming out every month. You don't want to lose a sale because you don't have it (product)," he cautions.

The shops have been specializing more in business software, although "if any one segment of our product line was missing it would be noticeably felt." Johnson believes games and other adventure software are the least essential because discount pressure is most apparent in this area. The dollar amount of game sales compared to other types of software "is not all that significant" and the product line has now branched out to record stores, department stores and other general interest shops.

Adventure game sales also tend to be the most faddish. "A game only stays popular for about 90 days. With some of the adventure games, maybe you've got 120 days or six months."

Business software becomes especially important to Softwaire Centre stores if, as anticipated, they are located near IBM or Xerox computer centers. The business customer likely will come in to browse, ask questions or make a

purchase for his personal micro, Johnson says, so it is important to stock a full array of accounting, word processing, spreadsheet and other suitable product.

Ron Maas, manager of the Softwaire Centre in West Los Angeles, agrees that in terms of dollar sales, CP/M oriented business software
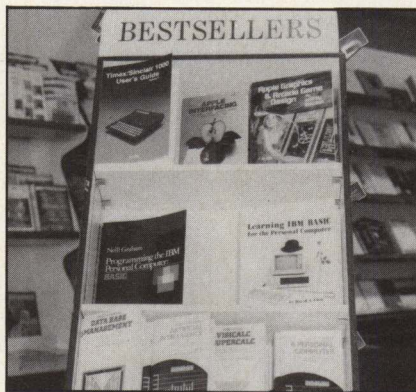
Softwaire Centre does a major selling job with books as this rack suggests.

probably is the leading sales item. There is an extremely strong demand for magazines and books; the shop even stocks back issues of many publications.

"They draw a lot of traffic, but in terms of dollar sales they're pretty insignificant. But they're easy to inventory and they do draw a lot of people in." He estimates more than 50 percent of dollar sales involve CP/M software, with about 20 percent generated from the books and magazines, 20 percent from games and the rest from supplies.

Educational software, though limited, is also proving popular. However, Maas says it is low-priced educational items for Vic-20 and Texas Instruments systems that are selling the best.

Maas says he'll continue to stock a full array of games despite the discount pressure and faddish tendencies. "We plan to stay in games as long as we can because they're one of the more exciting things in the store. But dealers should limit themselves to games they can support and demonstrate." The stock is becoming extremely diverse and difficult to maintain, he believes.

Although the 1400-square-foot facility is "a shoebox" compared to newer, sleeker Softwaire Centres,

Maas says the shop has managed to develop a strong identity with computer enthusiasts in the area. Referrals from nearby hardware dealers like Computique and ComputerLand are common. "They send their customers here after selling them the computer. A lot of other people have heard of us...and they come in."

The number of home micro users who are being introduced to computers for the first time "is growing in leaps and bounds." Demand for IBM software also is growing dramatically, he comments.

Although pressure from discounters has grown more intense, Maas says the store has been successfully countering with the notion that "what we're here for is not just to sell the product, but to help them (customers) understand and use it. It's becoming a more significant factor with advanced software."

The number of corporate accounts is growing. Such customers are more likely to appreciate the service aspect. "If problems develop with the software, we'll do whatever we have to do to get the problems solved," Maas assures. Telephone and in-field service are among services offered.

Johnson believes with the software field burgeoning, a shakeout in dealers is inevitable. This is where he believes the franchise operation will prove most successful. "It's parallel to the real estate industry, with the mom-and-pops falling out. People *like* shopping at national chains."

Softwaire Centers International has forged close links with a distribution company and a publisher. (There is cross-ownership among the three components of the field, with Softwaire Centre partners having interests in the other companies.)

"We really know this microcomputer industry. We work as a family of companies. There's a lot of strength in that," says Johnson. ∎

By Al Senia, an L.A.-based free-lance writer specializing in business, retailing, marketing and merchandising topics.
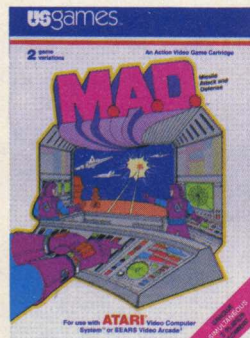
HANGMAN: Softsync, Inc. This cassette contains seven versions of that classic word game "Hangman." The first five contain their own libraries of words relating to their titles. The sixth one allows two or more people to play against each other. The last one allows creation of new versions with recorded libraries. 16K. Timex TS1000/Sinclair ZX81 compatible.

CIRCLE #138 ON READER SERVICE CARD

SPILLS & FILLS: Creative Software. This is another in the concept home education program series from Creative. The point is to fill object breakers with water using the least amount of fill-ups from the movable master breaker and spilling the least amount of water from the stationary object breakers. The program develops the skills of proportion, coordination and perception in children ranging in age from 6-12. There are two levels of difficulty. VIC-20 compatible.

CIRCLE #141 ON
READER SERVICE CARD

VIC-PACK-1: Computer Software Associates, Inc. This is a collection of programs for the VIC-20. Included are mortgage—this program finds the unknown variable for the principal, monthly payment, term of the loan and annual interest of a mortgage loan; elements—this program is a short quiz on naming the chemical symbol associated with different chemical elements; statistics—this program is a very brief introduction to the computer as a very fancy calculator; and such other elements as calendar, marblestat, expectancy and U-Draw. VIC-20 compatible.
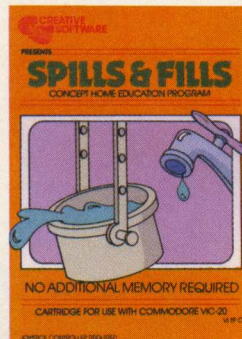
CIRCLE #142 ON
READER SERVICE CARD

M.A.D.: U.S. Games. The letters stand for Missile, Attack and Defense to give you the idea of this solar system shoot-em-up. The player must defend his future civilization's energy supply against waves of devious attack missiles. Your energy stations are vulnerable so you must use your Photon cannon and pit yourself against computer-controlled missiles; or, let another player guide the missiles, and do battle head-to-head. Each wave of missiles becomes more aggressive and intense. The battle is furious. Two game variations featuring unique two player combat. VCS-compatible.

CIRCLE #139 ON
READER SERVICE CARD
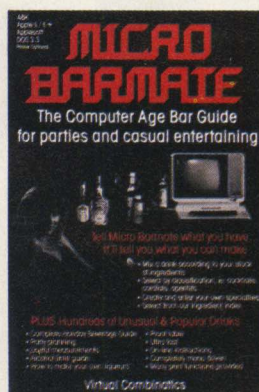
MICRO BARMATE: Virtual Combinatics. Picture this. You've got the lights down low and Johnny Mathis on the turntable. But what should you serve the guests in the way of cocktails? Just tell this program what your liquor stock is and it will tell you what you can make. You can even enter your own specialties and make hundreds of unusual or popular drinks (just have the ingredients in the house!). Now this is personal productivity! 48K. Apple compatible.

CIRCLE #140 ON
READER SERVICE CARD

ADVENTURES OF TRON: M Network (Mattel Electronics). This is another in the series licensed from the motion picture *Tron,* for one or two players and featuring two skill levels. The player must avoid deadly Grid Bugs, Recognizers, even tanks. Keep Tron moving up the elevator, jump him down a floor. Keep him alive and score points. Jump him up to intercept "bits." At the outset, Tron has four lives, one on the screen, three in reserve. VCS compatible.
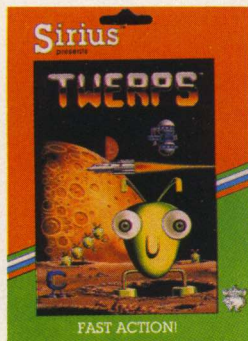
CIRCLE #143 ON READER SERVICE CARD

International Summer Consumer Electronics Show 1983

CHICAGO
SUNDAY, JUNE 5 – WEDNESDAY, JUNE 8

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- -

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Mail to: Consumer Electronics Show
Two Illinois Center, Suite 1607,
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Consumer Electronics Group

4

**TWERPS: Sirius.** Here's the scenario. Nine of your fellow Twerps are stranded on an asteroid. You, Captain Twerp, must rescue them. First, blast through the orbiters which protect the Asteroid, then carefully guide your Twerp-Craft onto the Asteroid's landing pad. Now gather up your fellow Twerps, get back into the Twerp-Craft, blast back through the Orbiters and return to Twerp-Base, all before running out of fuel. Atari 800 compatible.

CIRCLE #116 ON READER SERVICE CARD
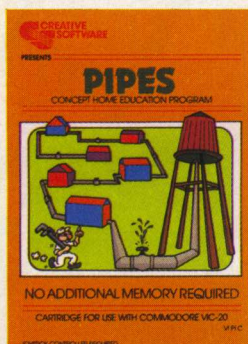
PIPES: Creative Software. This is the first in a series of home concept education programs from the company which already has a substantial number of games on the market for the VIC-20. Designed and written by John Doering it combines education with a games approach. The object is to connect all the houses in Gilroy, Calif. to the main water tower. You have just so much money to buy different lengths of pipe and you have just so many pieces of pipe available to you. Bright graphics and realistic sound give it game action, but for children six to 15 it teaches the concepts of spatial relationships and economics. The firm also maintains that adults will enjoy playing the program. VIC-20 compatible.

CIRCLE #118 ON READER SERVICE CARD
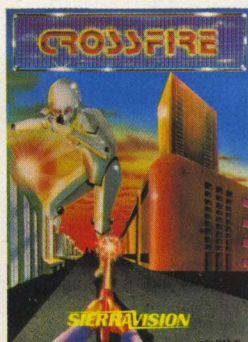
CROSSFIRE: SierraVision. The aliens have landed and are closing in. Only three ships remain to protect the city from these deadly invaders. And you have only a limited supply of ammunition. You've got to be quick here, dodging enemy fire as best you can. You've got to keep firing or else the alien missiles will destroy you. They've been destroying everything in their sight. The city's been evacuated and even your own regiment has retreated, leaving you alone. You're surrounded, laser shots are coming from all directions. If you watch out for the crossfire and if your own aim is deadly accurate, you'll succeed. 48K. IBM PC compatible.

CIRCLE #122 ON READER SERVICE CARD

ADVANCED BUDGET MANAGER: Softsync, Inc. This is a personal productivity program, a financial program that combines a financial data base with a forecasting program that allows you to project income and expense items. It's set up to store a year's worth of projected expense and income as well as store a year's worth of actual expense and income for comparison and record keeping. The manager also contains six income and 24 expense categories which are user defined. These items can be projected the same for each month of the year or individually by month. 16K. Timex TS1000/Sinclair ZX81 compatible.

CIRCLE #119 ON READER SERVICE CARD
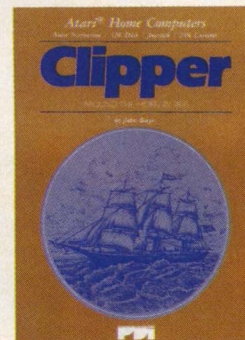
CLIPPER: Program Design, Inc. This program brings you back to 1850 as you navigate a clipper ship from New York to San Francisco. Perils along the way include fierce storms, deadly calms, mutinies and illnesses that befall the crew. You have to navigate carefully, otherwise you can sink against rocks or even an iceberg. The company promises dazzling graphics and sound effects. Included also is a voice cassette with informative narration and sea chanties sung by sailors as they went around the Horn in 1850. Atari 400/800 compatible.

CIRCLE #113 ON READER SERVICE CARD

RIVER RAT: ZiMag. The player must race his speedboat up the river. But waiting are rafts, ducks, swimmers and other wildlife that get in the way. Open up the throttle as wide as you dare. There are even ramps to impart the exhilaration of soaring above the water and the thrill of spray as you touch down. You are also up against a stopwatch in this nonstop action water adventure. 24K disk. Atari 400/800 compatible.

CIRCLE #112 ON READER SERVICE CARD

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WALLWAR: SierraVision. It started out as a game. But with fast-paced action bombarding you with a symphony of sounds, it becomes nearly a real race to knock out your opponent's glowing plasma field and release the Balls of Death to finish off your foe. All this happens only after getting through a barrier of light—the robot's first defense. Created by Peter Oliphant. Atari 400/800 compatible.

CIRCLE #188 ON READER SERVICE CARD
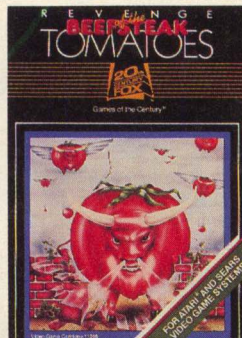
REVENGE OF THE BEEF-STEAK TOMATOES: 20th Century Fox Games Of The Century. You don't have to be a vegetarian to play but you might get a bad case of veggie indigestion nonetheless as you improve your skills with this game. The premise is nightmarish. Harmless garden tomatoes are transformed into red devils and these raging big beefsteak giants are on a rampage. They can't be destroyed, just trapped behind brick walls. But can you build enough walls fast enough before the red death spreads over the world? Programmed by John Russell. VCS compatible.

CIRCLE #191 ON READER SERVICE CARD
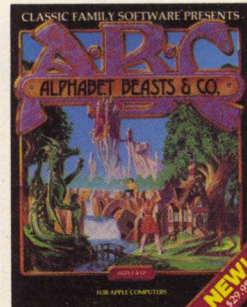
ABC—ALPHABET BEASTS & CO.: Software Productions. Three educational programs in one. Children can use *ABC* to learn the alphabet, numbers and computer literacy. Press any letter key and a magical fantasy beast whose name begins with that letter appears onscreen, along with a poem. Happy dragons and fire-breathing dragons alert you as to your learning process. When you get tired of exerting the brain, "creature features" allows you to create a graphic scene, mixing up heads, bodies and legs between a dragon, a genie, a boy and an alien. For the Apple II/II+/IIe, 48K.

CIRCLE #192 ON READER SERVICE CARD
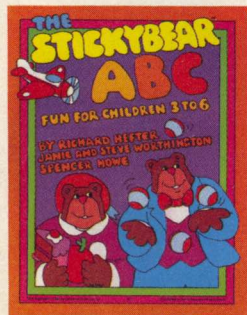
STICKYBEAR ABC: Optimum Resource, Inc. (distributed by Xerox Education Publications/Weekly Reader). This is an alphabet program for children ages 3-6. The instructions for the program are simply "press any letter," and each letter of the alphabet is represented by two completely animated pictures with sound. Pressing B, for example, will bring to the screen a bee buzzing around Stickybear. The word bee also appears on the screen, as well as the letter B. Included in the package are an ABC poster and a hardback book, called The Look Book, which can be used with children for picture and word recognition. Apple compatible.

CIRCLE #189 ON READER SERVICE CARD
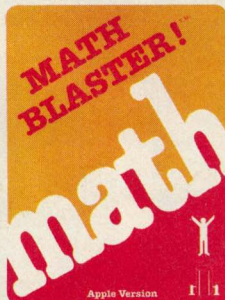
MATH BLASTER: Davidson & Associates. The company describes this as "educational software that works." The program contains over 600 problems in addition, subtraction, multiplication, division, fractions and decimals for students ages six through 11. The problems are grouped in "families of facts" and can be used with four different learning activities, including a fast action, arcade-style game. The program also has an easy-to-use editor so that parents and teachers can enter additional sets of problems. It's in color and has sound effects as well as animation. Contained are two disks and a 60-page manual. Apple compatible.

CIRCLE #190 ON READER SERVICE CARD
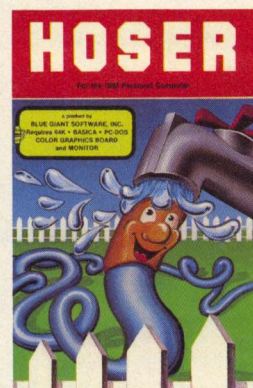
HOSER: Blue Giant Software. The wild and thirsty hose is going berserk as it seeks out its life's blood...a faucet...in a strange and alien yard that is teeming with irregular obstacles. To keep your hose alive, you must accumulate as many gallons of water as possible from the friendly faucets. As your hose gets thirstier and thirstier, it also grows longer, making it more difficult to fill up and control. For the IBM PC.

CIRCLE #193 ON READER SERVICE CARD

CYBORG: Sentient Software. In this game by Michael Berlyn, an Apple II computer becomes more than just an aid. By typing HELP a highly intellectual Cyborg brings additional information to get you through this adventure, an adventure that contains character development, animals the player talks to and, importantly, consistency. Apple II compatible.
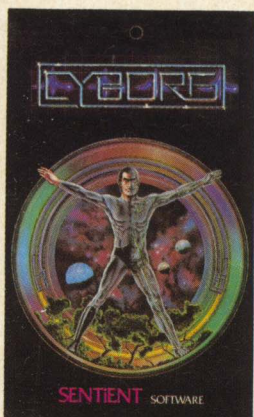
CIRCLE #194 ON
READER SERVICE CARD

THUNDERBOMBS: Penguin. You are cruising around in your interstellar cloudship and find yourself in the midst of a swarm of deadly dronebombs. You are trapped in a deadly crossfire. The only defense is to dodge and fire back as fast as you can. The situation appears hopeless, though. Behind the approaching alien ships are droneclone replenishers replacing the enemy craft as fast as you shoot them down. Only by eliminating the supply ships can you hope to destroy the wave of attacking aliens. Unfortunately for the player, each wave destroyed brings on another even deadlier wave of attackers, in different ships with different tricks. Fast arcade action by Thomas Becklund. Apple compatible.

CIRCLE #195 ON
READER SERVICE CARD
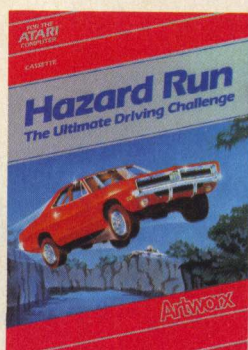
HAZARD RUN: Artworx Software Company. You've just been spotted by the local sheriff so you have to make the dangerous run through Crooked Canyon, past Bryan's Pond to the jump at Hazard Creek. You can actually put your joystick-controlled car up on two wheels to make it through tight spots as you dodge trees, rocks and chickens in this high-stress, nerve-racking game. The program features five challenging courses and makes full use of player/missile graphics, re-defined characters, and scrolling techniques to provide fast action and visual excitement. Program requirements: 16K for cassette, 24K for diskette, one joystick. Atari 400/800 compatible.

CIRCLE #196 ON
READER SERVICE CARD

DONKEY KONG JUNIOR: Coleco. This Nintendo arcade game is still popular in the halls but it's now also a home cart. The tables have turned and now it's Mario the carpenter, beleaguered so badly in *Donkey Kong,* who has Papa Donkey Kong lock up in a cage. Surrounded by jaw-snapping creatures, Donkey Kong Junior climbs and swings across vines to reach a special key. If he's successful, he advances to another screen and must pick up even more keys. Extra points are earned by plucking fruit to zap his opponents. ColecoVision compatible.

CIRCLE #197 ON
READER SERVICE CARD

SPACE FURY: ColecoVision. This is another popular arcade game that's been translated from Sega to a video game cart. It gets off to a scary start as you actually meet the dreaded alien commander whose loathsome face appears on the screen challenging you to do battle. His scouts move in and you must maneuver your fighter to blast them before they combine into a larger ship and shoot fireballs. Then, dock with a mother ship to gain the necessary firepower to fight it out with wave upon waves of cruisers and destroyers. ColecoVision compatible.

CIRCLE #198 ON
READER SERVICE CARD
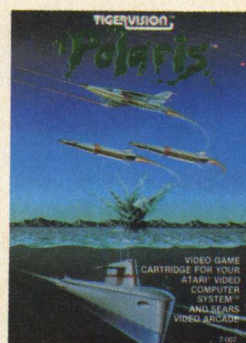
POLARIS: TigerVision. Sea and air action nearly come to life when the player commands a submarine maneuvering away from enemy submarines. The player tries to destroy the squadrons of attacking aircraft. But only by surviving such an air strike can the player begin the final retreat—guiding his sub through a channel guarded with depth charges—and there is always a chance of a second air assault. VCS compatible.

CIRCLE #199 ON READER SERVICE CARD
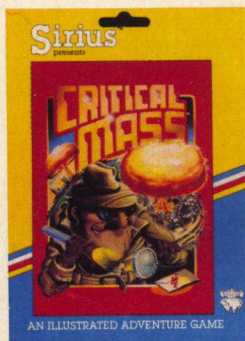
CRITICAL MASS: Sirius. In this illustrated adventure game designed by Bob Blauschild, the player has exactly nine days to prevent five of the largest cities from being obliterated by thermonuclear weapons, a heinous crime about to be committed by a "sicko." The game provides challenging riddles and fast action sequences. This combination, in addition to the plot, according to the firm, puts it in a class all by itself. Apple compatible.

CIRCLE #127 ON READER SERVICE CARD

SPACE PANIC: ColecoVision. Again, another successful arcade game translated to the video cart medium. And like other successful Coleco games, this one, too, plays, sounds and scores like the arcade game. The mission: to eliminate the space monsters by racing your spaceman along the floors of a giant girder structure. Climb up or down ladders from floor to floor, or leap through the holes for a quick descent. But don't let the monsters attack your spaceman. If you should defeat one of the monster hordes, a more dangerous attack will follow. You are fighting both the space monsters and the clock. ColecoVision compatible.

CIRCLE #125 ON READER SERVICE CARD
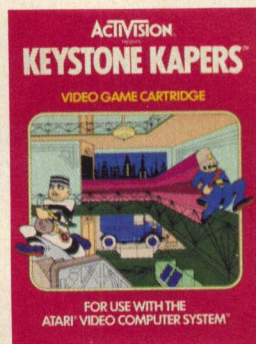
KEYSTONE KAPERS: ActiVision. Designed by Garry Kitchen, this program is a single-player, madcap chase of a persistent policeman and a rouguish robber through a 1920s department store. Player uses the joystick to guide Keystone Kelly, the cop, as he chases Harry Hooligan, the robber, through three floors and across the rooftop of a merchandise-filled department store. Naturally, as the game moves on, the action gets tougher as Kelly's tasks takes on difficult dimension as obstacles get in his way. The object is to find Hooligan for the most points before he escapes from the roof. VCS-compatible.

CIRCLE #126 ON READER SERVICE CARD

COMPUTER TUTOR: Softsync, Inc. This is an educational package designed to both educate and entertain children. Included are the Alpha/Vowel tutors, programs constructed as drills in which students match letters to correct words and their corresponding pictures. The drills run continuously and the student learns at his or her own pace. Both programs actually follow a format similar to educational books that are usually used to tutor children. Alpha tutor is geared toward ages 4-8, while vowel tutor is geared towards ages 5-9. 16K. Timex TS1000/Sinclair ZX81 compatible.

CIRCLE #129 ON READER SERVICE CARD
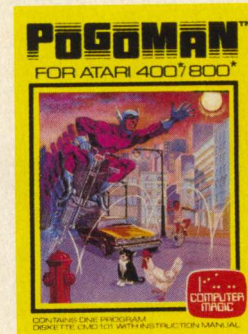
POGOMAN: Computer Magic. Plug in your joystick and hop aboard Pogoman for a real up and down game. Your five man team is helping the city to conserve energy by turning off as many street lamps as possible while avoiding obstacles. Example: too many air conditioners are in use during a heat wave. With a regular jump you can jump such obstacles as a cat, chickens and hydrants. With a high jump you turn off lights. And with a long jump you can clear all objects. 16K. Atari 400/800 compatible.

CIRCLE #130 ON READER SERVICE CARD

GALACTIC ADVENTURES: RapidFire. This is a science fiction, role-playing, tactical combat game that takes the player to the space port of a distant, strange planet. At the beginning you are a novice but you go into the "streets" to acquire combat experience, learn skills and even earn money to help you recruit fellow adventurers to become part of your team. Then you can embark on hair-raising adventures of various types as the program journeys into different and dangerous scenarios. Apple compatible.

CIRCLE #128 ON READER SERVICE CARD

ELECTRONIC PARTY: Wizware (Scholastic). Anyone for electronic pin the tail on the donkey? As activity packages on the screen are opened, children can follow the directions to act out something silly or serious, or even program their own surprises. Other party games include Make-A-Card, which allows children to create original electronic greeting cards, and Pop-a-Balloon, a fast-action game of skill where the object is to land all the balloons on the tip of an umbrella. Apple, Atari 400/800, TI 99/4A and VIC-20 compatible.

CIRCLE #131 ON READER SERVICE CARD

COSMIC AVENGER: Coleco. Adapted from the Universal arcade game of the same name, this futuristic air and sea battle game allows you to command a space fighter in combat against an alien civilization. Using the control, you direct it over the cities and down through sea caverns. The alien installations must be destroyed at all costs. But the aliens and submarines deploy deadly weapons at unrelenting speed and force. The player must pay close attention to the radar screen, observe positions and retaliate to stay alive. ColecoVision compatible.

CIRCLE #132 ON READER SERVICE CARD
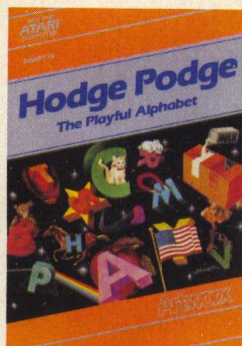
HODGE PODGE: Artworx. Subtitled "The Playful Alphabet," the program, by Marsha Meredith, provides knowledge in what the firm claims is an enjoyable and non-intimidating fashion for children 18 months to six years of age. Consisting of many cartoons, animations and songs, the program provides something different for the child to explore from Apples to Zigzags. With an adult present, the child can be told about magnets, numbers, musical notes, animals and more. Alone, the child can be amused by color, sound and pictures. Apple 48K diskette and Atari 32K diskette program requirements. Both Apple and Atari 400/800 compatible.

CIRCLE #133 ON READER SERVICE CARD
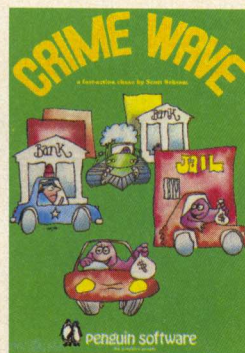
CRIME WAVE: Penguin Software. The player better intercept the criminals quickly or else disaster besets mankind. Every crook in town is trying to knock off a bank in order to raise money to buy frightening Robot Rammers. With these killer machines, criminals can literally destroy the forces of law and order. The player must hop into a Blue Cruiser and round up the felons before they get their Robot Rammers onto the streets and make a demolition derby out of the city. A chase game by Scott Schram. Apple compatible.

CIRCLE #134 ON
READER SERVICE CARD
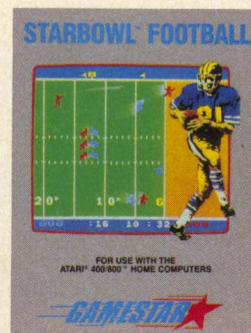
STARBOWL FOOTBALL: Gamestar. Created by Dan Urgin and Scott Orr for one or two players, this program brings NFL realism to the computer. The players are animated and seem to be able to think. There are even realistic sounds such as the "whoosh" of the ball and the cheer of the crowd. The player can go solo against the computer or against a human opponent. The player can run, kick, pass and catch at college or pro skill levels that improve as he improves. The player can call his own plays, thus insuring that every game is different. Offsides, pass interferences and fumbles are also there to contend with. Atari 400/800 compatible.

CIRCLE #135 ON
READER SERVICE CARD
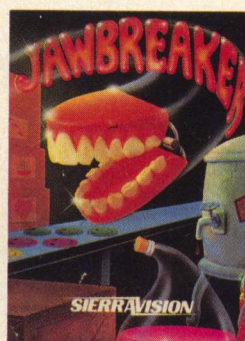
JAWBREAKER: SierraVision. The player has never gone to a candy store like this before. While you are eating treats a swarm of happy faces tries to catch you to pull those teeth. You've got to be quick, moving side-to-side and up and down through the continuously moving doors to avoid the grinning gobblers. The defense is to eat an energizer and then go after the happy faces. This merry maze chase game may leave you hungry for more. 48K. Apple compatible.

CIRCLE #137 ON READER SERVICE CARD

C O M P U T E R G A M E S

This Month	Last Month	Mos. on Chart	Title - Manufacturer	Apple	Atari	Commodore	IBM	Texas Instruments	CP/M	Other
1	5	3	**MINER 2049ER** - Big Five		●					
2	1	6	**FROGGER** - Sierra On-Line	●	●					
3	3	14	**CASTLE WOLFENSTEIN** – Muse	●	●					
4	NEW		**ZAXXON** - Datasoft		●					●
5	8	4	**ZORK I** - Infocom	●	●		●		●	
6	6	2	**MINER 2049ER** - Micro Lab	●						
7	7	2	**DEFENDER** - Atari		●					
8	2	11	**CHOPLIFTER** - Broderbund	●	●					
9	4	16	**WIZARDRY** - Sir-Tech	●						
10	NEW		**NECROMANCER** - Synapse		●					
11	9	3	**FLIGHT SIMULATOR** - Microsoft				●			
12	NEW		**ZORK III** - Infocom	●	●		●		●	
13	10	5	**DEADLINE** - Infocom	●	●		●		●	●
14	14	7	**SHAMUS** - Synapse	●	●					
15	16	4	**FLIGHT SIMULATOR** - Sublogic	●						●
16	NEW		**GALAXIAN** - Atari		●					
17	17	2	**SOCCER** - Thorn-EMI		●					
18	11	3	**CENTIPEDE** - Atari		●					
19	NEW		**JUMPMAN** - Epyx	●						
20	13	5	**PAC-MAN** - Atari		●					

▢ CRT Screen Symbols are awarded to those products reflecting the strongest sales activity for this survey.

Best-selling software programs across the country based on retail sales volume as surveyed by Eastman Publishing.

BEST SELLERS

V I D E O   G A M E S

This Month	Last Month	Mos. on Chart	Title - Manufacturer, Catalog Number	Atari/VCS	ColecoVision	Intellivision	Odyssey	Other
1	NEW		**CENTIPEDE** - Atari CX-2676	●				
2	2	3	**RIVER RAID** - Activision AX-020	●				
3	1	5	**PITFALL!** - Activision AX-018	●				
4	4	2	**MS. PAC-MAN** - Atari CX-2675	●				
5	5	3	**VANGUARD** - Atari CX-2669	●				
6	NEW		**DONKEY KONG JR.** - Coleco 2601		●			
7	7	5	**ZAXXON** - Coleco 2435	●	●			
8	8	3	**SPIDER FIGHTER** - Activision AX-021	●				
9	3	6	**FROGGER** - Parker Brothers 5300	●				
10	16	2	**PHOENIX** - Atari CX-2673	●				
11	10	5	**ADVANCED DUNGEONS & DRAGONS** - Mattel 3410			●		
12	9	6	**DONKEY KONG** - Coleco 2411	●	●	●		
13	NEW		**SEAQUEST** - Activision AX-022	●				
14	13	6	**DEMON ATTACK** - Imagic 3200	●				
15	19	4	**TURBO** - Coleco 2413	●	●			
16	14	5	**MEGAMANIA** - Activision AX-017	●				
17	6	3	**DRAGONFIRE** - Imagic 3611	●				
18	15	6	**REALSPORTS BASEBALL** - Atari CX-2640	●				
19	12	6	**PAC-MAN** - Atari CX-2646	●				
20	20	4	**MOUSETRAP** - Coleco 2419		●	●		

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Best-selling software programs across the country based on retail sales volume as surveyed by Eastman Publishing.

ADVERTISERS INDEX

EVENTS

AMERICAN BOOKSELLERS ASSOCIATION CONVENTION
June 4-7, 1983—Dallas, TX
American Booksellers Association
122 E. 42nd St.
New York, N.Y. 10168
(212) 867-9060

NATIONAL COMPUTER CONFERENCE
May 16-19, 1983—Anaheim, CA
American Federation Of Information
Processing Societies, Inc.
1815 N. Lynn St.
Arlington, VA 22209
(703) 558-3612

CES
June 5-8, 1983—Chicago
Consumer Electronic Shows
Two Illinois Center
233 North Michigan Ave.
Chicago, IL 60601
(312) 861-1040

JULY ISSUE IN SOFTWARE MERCHANDISING

SOFTWARE FOR PORTABLES. Portable computers—another emerging hardware genre—have been selling faster than hot cakes. With this new genre comes a plethora of software. How to sell it? How to stock? And, importantly, how to get ahold of such software will be examined.

MUSICAL COMPUTERS. Computers giving music lessons? It is happening in the schools and at home. Musical software is rapidly entering the marketplace. What is it? And who is making it?

DISPLAYING BOOKS. How can software merchandisers display all those computer books being published? Bookstores tell how they deal with books and software merchandisers have ideas as well on how to maximize sales of today's computer books.

RADIO GETS RESULTS. How to make use of co-op advertising budget, establish an image and bring positive attention to a store. Radio is natural for creative promotions.

SELLING STRATEGIES. In part II, software selling techniques are examined. Software merchandisers, distributors and manufacturers suggest ways to ensure closing that sale and enticing customers to return for more.

SOFTWARE PORTABLE STYLE

ADVERTISING CLOSING DATE, JUNE 1.

CIRCLE #193 ON READER SERVICE CARD →